Exhibit 1

REDACTED VERSION OF DOCUMENT SOUGHT TO BE SEALED

Steve W. Berman (*pro hac vice*)
Robert F. Lopez (*pro hac vice*)
HAGENS BERMAN SOBOL SHAPIRO LLP
1301 Second Avenue, Suite 2000
Seattle, WA 98101
Telephone: (206) 623-7292
Facsimile: (206) 623-0594
steve@hbsslaw.com
robl@hbsslaw.com

Ben M. Harrington (SBN 313877)
Benjamin J. Siegel (SBN 256260)
HAGENS BERMAN SOBOL SHAPIRO LLP
715 Hearst Avenue, Suite 202
Berkeley, CA 94710
Telephone: (510) 725-3000
Facsimile: (510) 725-3001
benh@hbsslaw.com
bens@hbsslaw.com

Bonny E. Sweeney (SBN 176174)
Kyle Geoffrey Bates (SBN 299114)
HAUSFELD LLP
600 Montgomery Street, Suite 3200
San Francisco, CA 94104
Telephone: (415) 633-1908
Facsimile: (415) 358-4980
bsweeney@hausfeld.com
kbates@hausfeld.com

Eamon P. Kelly (*pro hac vice*)
Joseph M. Vanek (*pro hac vice*)
Alberto Rodriguez (*pro hac vice*)
SPERLING & SLATER, P.C.
55 W. Monroe Street, 32nd Floor
Chicago, IL 60603
Telephone: (312) 676-5845
Facsimile: (312) 641-6492
jvanek@sperling-law.com
ekelly@sperling-law.com
arodriguez@sperling-law.com

Interim Co-Lead Class Counsel

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION

IN RE GOOGLE PLAY DEVELOPER ANTITRUST LITIGATION	Case No. 3:20-cv-05792-JD
	~~FIRST~~SECOND AMENDED CONSOLIDATED CLASS ACTION COMPLAINT FOR VIOLATION OF THE SHERMAN AND CLAYTON ACTS (15 U.S.C. §§ 1, 2, 3, 15, 26), CARTWRIGHT ACT (CAL. BUS. & PROF. CODE §§ 16700 ET SEQ.) AND UNFAIR COMPETITION LAW (CAL. BUS. & PROF. CODE §§17200 ET SEQ.)
	DEMAND FOR JURY TRIAL OF ALL ISSUES SO TRIABLE
Related Actions: *Epic Games, Inc. v. Google LLC,* No. 3:20-cv-5671-JD	

SECOND AMENDED CONSOLIDATED CLASS ACTION COMPLAINT   Case No.: 3:20-cv-05792-JD
010803-11/1709085 V1

~~FIRST AMENDED CONSOLIDATED CLASS ACTION COMPLAINT~~
~~Case No.: 3:20-cv-05792-JD~~

~~010803-11/1334529 V1~~

1

In re Google Play Consumer Antitrust Litigation, No. 3:20-cv-5761-JD

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

SECOND AMENDED CONSOLIDATED   -
CLASS ACTION COMPLAINT   Case No.: 3:20-cv-05792-JD
010803-11/1709085 V1

FIRST AMENDED CONSOLIDATED CLASS ACTION COMPLAINT
Case No.: 3:20-cv-05792-JD

010803-11/1334529 V1

TABLE OF CONTENTS

REDACTED VERSION OF DOCUMENT SOUGHT TO BE SEALED

FIRSTSECOND AMENDED CONSOLIDATED   - iii -
CLASS ACTION COMPLAINT   Case No.: 3:20-cv-05792-JD
010803-11/1577289 V1010803-11/1709085 V1

For their suit against Defendants Google LLC, Google Ireland Limited, Google Commerce Limited, Google Asia Pacific PTE. Ltd. and Google Payment Corp. (collectively, Google), Plaintiffs Pure Sweat Basketball Inc. and, Peekya App Services, Inc., and LittleHoots, LLC, on their own behalf and that of all similarly situated U.S. Android OS application developers, allege as follows:

I.   INTRODUCTION

1.   Native applications—apps of various sorts programmed for and downloaded to a mobile device—bring smartphones and tablets to life. In turn, add-ons for apps—items such as consumables (for example, extra lives in an adventure game) or subscriptions for full-fledged mobile productivity apps—make apps more fun or useful. These apps and in-app digital content are created through the ingenuity, training, investment, and hard work of developers, and the buyers of their products now include most households in the United States. As of February 2021, 85% of Americans owned smartphones, and 53% owned tablets.[1] Where U.S. consumers buy apps and add-ons depends on whether their devices run on Apple's or Google's respective operating systems. As the Congressional Subcommittee on Antitrust, Commercial, and Administrative Law recently reported, "both Apple and Google have durable and persistent market power in the mobile operating system market; iOS and Android run on more than 99% of mobile devices in the U.S. and globally."[2] The Apple App Store is "the only app store available on iOS devices," and the "Google Play store is the primary app store installed on all Android devices."[3]

2.   And because the apps and add-ons for iOS and Android devices are incompatible[4] (with all the barriers and switching costs entailed), Apple's app store does not place competitive pressure on the Google Play Store, particularly regarding the prices that Google charges developers for app-

---

[1] http://www.pewinternet.org/fact-sheet/mobile/ (last accessed July 19, 2021).

[2] *Investigation of Competition in Digital Markets: Majority Staff Report and Recommendations*, Subcommittee on Antitrust, Commercial and Administrative Law of the Committee on the Judiciary, United States House of Representatives (October 6, 2020) ("House Report") at 94, available at https://judiciary.house.gov/uploadedfiles/competition_in_digital_markets.pdf (last accessed Oct. 21, 2020).

[3] *Id.* at 95.

[4] https://yourbusiness.azcentral.com/apple-apps-compatible-android-20369.html (last accessed Aug. 15, 2020); *see* House Report at 94.

distribution services. The same is true for in-app purchases (often called "IAP"), which primarily entail the processing of consumers' payments for any add-ons they purchased in apps distributed through Google Play Store (collectively, "in-app digital content").[5] As a result, Google and Apple split the lucrative mobile apps world between them, with enormous profits for each.

3.   This suit concerns the anticompetitive conduct Google has engaged in to (1) establish and maintain its monopoly in the ~~U.S.~~ market for the distribution of ~~Android OS~~ apps that run on the Android operating system (OS), and (2) extend that monopoly to the market for in-app digital content.

4.   Initially, Google purported to be building an "open ecosystem" that permitted developers to sell apps to consumers however they choose.[6] In reality, through a thicket of agreements with smartphone manufactures and carriers, "revenue sharing" payoffs, and technical barriers, Google has constructed an effectively closed ecosystem, i.e., an ecosystem closed to rival app stores. In total, Google Play now distributes more than 90% of all Android OS apps in the United States, enjoying monopoly power in the market for the distribution of Android OS apps. Furthermore, Google illegally ties the Google Play Store to its own in-app payment processor ("Google Play Billing," or "GPB")— requiring all developers selling apps through Google Play Store to sell any in-app digital content through Google Play Billing. Google also enjoys a monopoly in the ~~U.S.~~ market for in-app payment processing on Android OS.[7]

---

[5] *See* House Report at 95 ("The App Store and the Play Store do not compete against one another. Android users cannot access the Apple App Store, and iOS users cannot access the Google Play Store, so the dominance of the Play Store is not constrained by the App Store and vice versa.") (citation omitted); *id.* at 102 ("high switching costs and a lack of on-device competition means that neither firm's market power is disciplined by the presence of the other.").

[6] Or as Google's Donald Harrison put it in a March 2020 email to Tim Sweeny, the CEO of Epic Games: "Android continues to be an open ecosystem, where you have multiple options for distributing your [app], including through OEM stores."

[7] While Google has "always required developers who distribute their apps on Play to use Google Play's billing system if they offer in-app purchases of digital goods, and pay a service fee from a percentage of the purchase," it recently "clarified" its Payments Policy "to be more explicit that all developers selling digital goods in their apps are required to use Google Play's billing system." "[F]or those who already have an app on Google Play that requires technical work to integrate [Google's] billing system[,]" Google ~~has~~initially set a deadline of September 30, 2021 for developers to "complete any needed updates." *See* https://android-developers.googleblog.com/2020/09/listening-to-developer-feedback-to.html (last accessed July 15, 2021). Google subsequently extended that deadline to March 31, 2022. *See* https://android-developers.googleblog.com/2021/07/apply-more-time-play-payments-policy.html (last accessed Nov. 29, 2021).

5.   Far from maintaining its Android OS apps monopoly in a competitive "open" ecosystem, Google has and continues to systematically leverage anticompetitive agreements and technical barriers to secure that monopoly and block potential competition. Google has done so in two main ways.

6.   *First*, Google obtained and maintains its monopoly status through agreements with device manufacturers (often called original equipment manufacturers or "OEMs"). The key agreement in this respect is the Mobile Application Distribution ("MADA") Agreement. Any OEM that wants to preinstall the Google Play Store must sign a MADA Agreement to obtain a license for Google's must-have apps—including the popular YouTube and Google Maps apps, which are literally "must-have" because of Google's forced-bundling practices.[8] And under the MADA Agreements, the manufacturer is required not only to preinstall Google Play Store but must, in addition, give it premium placement through a permanent position on the device's home screen.

7.   As discovery produced so far in this case has revealed, starting in 2019, Google also began entering new "Revenue Sharing Agreements" ("RSAs") with OEMs. Under these new RSAs, Google both (1) expressly prohibits several key manufacturers, in exchange for a share of the revenue generated through Google Play Store, from loading any app store on certain devices except for the Google Play Store, and (2) significantly restricts the types of apps those manufacturers can preinstall. One express purpose of the RSAs is to exclude nascent competitors from the market.

8.   *Second,* in addition to using a thicket of agreements with OEMs to substantially foreclose distribution of other app stores,[9] Google deploys unnecessary and pretextual technical barriers to deter consumers from "sideloading" apps. These barriers include (1) default settings to block downloading; (2) misleading official Android security warnings; and (3) other security mechanisms designed to deter consumers from using a competing app store or downloading apps from

---

[8] *See* House Report at 213 (finding that "Google required that any smartphone manufacturer seeking to license Android preinstall Google Search and Google Play Store, alongside a host of other rotating apps selected by Google.") (citation omitted).

[9] *See id.* at 219 ("Because Google's Play Store is the primary way that users install applications on Android devices, the Play Store effectively functions as a gatekeeper for software distribution on a majority of the world's mobile devices.")

1   outside the Google Play Store. Google also prevents the automatic updating of apps downloaded

2   outside Google Play Store and, through its security systems, sometimes disables such apps without a

3   user's knowledge.

4   9.   Google's pretextual technical barriers create, as the Congressional Subcommittee

5   explained, "significant friction for sideloading apps to Android devices. … [S]ideloading entails a

6   complicated twenty-step process, and users encounter multiple security warnings designed to

7   discourage sideloading."[10]

8   10.   Through this conduct, Google has substantially *and intentionally* foreclosed

9   competition, even from otherwise established and successful companies capable of policing their

10   own stores for malware.

11   11.   Not surprisingly, an internal Google document from 2021 estimates that, in the United

12   States, only 3% of devices have a user-sideloaded store.

13   12.   That is precisely what Google intended—to degrade and eliminate alternative channels

14   of app distribution and in-app content. As Google knows, few Android users are even aware of the

15   necessary process for going outside the Google Play Store, much less willing to go to such trouble

16   (and ignore Google's security warnings) to download an app from a competitor. Its internal documents

17   show that Google "kn[ew] from [its] data" that "install friction" from sideloading "is not only a bad

18   experience," but" that it would "drastically limit [an app's] reach."[11]

19   13.   Through its anticompetitive conduct, including both its anticompetitive agreements

20   with OEMs and others and unjustifiable technical barriers, Google has secured, and prevented the

21   erosion of its, monopoly power in the market for distribution of Android OS apps and in the market

22   for in-app payment processing. Google's contracts and practices "cut off the air supply" even from

23   well-resourced competitors like Amazon, robbing the marketplace of innovative means of distributing

24   apps at lower costs to developers. By stifling competition, Google deprives consumers of readily

25

---

26   [10] *Id.* at 97.

27   [11] *See also* "Download apps to your Android device," available at: https://support.google.com/android/answer/7391672?hl=en&ref_topic=7311596 (last accessed Aug. 15, 2020) (setting forth

28   official safety warnings for those who would venture outside Google Play).

FIRSTSECOND AMENDED CONSOLIDATED   - 4 -
CLASS ACTION COMPLAINT   Case No.: 3:20-cv-05792-JD
010803-11/1577289 V1010803-11/1709085 V1

accessible, alternative choices in the U.S. market for Android OS app distribution and in-app payment processing.

14. Google also abused its unlawfully acquired market dominance to impose supracompetitive pricing on developers. Google maintains a default service fee of 30%[12] (subject to exceptions for certain kinds of purchases) paid by developers to Google on each sale of non-zero-priced Android OS apps through the Google Play Store and of in-app digital content[13] through (the mandatory) Google Play Billing.[1413] So if an app or in-app digital content costs $1.99, Google usually takes nearly 60 cents.

15. For a small portion of transactions, Google charges developers a 15% service fee. For example, after Plaintiffs commenced this litigation, Google allowed app developers to register for a lower 15% service fee on the first $1 million of annual revenue they generate through Google Play Store. But like Google's 30% service fee, the 15% service fee is still a supracompetitive charge.

16.15. Moreover, as a condition of accessing Google Play Store, Google forces developers to process payments for in-app purchases exclusively through Google Play Billing—at a default cost of 15% to 30% on each transaction. In other words, Google illegally ties its Google Play Billing solution

---

[12] Google's current and past 70% (developer) / 30% (Google) revenue split is memorialized at paragraph 3.4 of its Google Play Developer Distribution Agreement by reference to a Service Fee, which in turn is linked to Google's "Service fees" schedule. (*See* https://play.google.com/about/developer-distribution-agreement.html (Dev. Agr.) (last accessed AugDec. 153, 2020), available at:2021); https://support.google.com/googleplay/android-developer/answer/112622?hl=en ("For apps and in-app products offered through Google Play, the service fee is equivalent to 30% of the price. You receive 70% of the payment. The remaining 30% goes to the distribution partner and operating fees.") (last accessed AugDec. 153, 20202021).)

[13] Google has modified its service fee structure with respect to subscriptions. (https://support.google.com/googleplay/android-developer/answer/112622?hl=en ("As of January 1, 2018, the transaction fee for subscription products decreases to 15% for any subscribers you retain after 12 paid months. If a subscriber has been active as of this date, that time will be counted. For example, if a subscriber has been active for 4 months, the transaction fee will be reduced to 15% after 8 more paid months.").)

[1413] Google also charges developers a $25 fee to set up a Google Play developer account. (https://support.google.com/googleplay/android-developer/answer/6112435?hl=en) ("There is a US$25 USD one-time registration fee … .") (last accessed AugDec. 153, 20202021).) This fee helps offset costs that Google may claim as justification for its supracompetitive 30% (or 15%) service fee, especially considering the sheer number of developers from whom Google collects it.

1 to the agreement to distribute apps through Google Play Store and then charges a supracompetitive fee

2 for that tied product.

3   17.16. The anti-competitive effects of this tie are far-reaching; not only does it impose a

4 supracompetitive fee on developers, but it also stymies innovation and limits key ways in which

5 developers manage and develop their businesses. But for that illegal tie, developers could create and

6 use proprietary payment systems or the products of competitors that could compete not just on price

7 but by offering more features and better functionality. The result would be an ecosystem fundamentally

8 enriched by market competition.

9   18.17. Documents produced by Google confirm that its 30% service fee was picked out of a

10 hat in 2009, when Google launched the earliest version of what is now the Google Play Store. A slide

11 from a January 2009 presentation titled "Apps Marketplace Monetization" is explicit:

12 **30% is an arbitrary fee >**
    the transaction cost to GOOG (2%).

13

14 More recent documents confirm the arbitrariness of Google's pricing—a Google presentation from

15 2021 estimates that processing in-app payments costs Google just 2.6% per transaction.

16   19.18. What all this shows is that Google could generate a profit while charging developers

17 significantly less than 15%it currently charges—a conclusion confirmed by Google's own documents,

18 as well as by other benchmarks for competitive rates. Epic, for example, charges a 12% service fee on

19 the Epic Games Store. Another relevant benchmark comes from Google's own Chrome Web Store.

20 Unlike Google Play Store, the Chrome Web Store faces competition from various distribution

21 channels, and thus Google cannot charge arbitrary anticompetitive rates. Instead, Google charges just

22 5%—a rate that is *one sixth* the charge for the Google Play Store.15 14

23

24

25   15 14 "The transaction fee for all purchases in Google Play (apps and in-app purchases) is 30% of
    the price the customer pays. In other words, developers get 70% of the payment and the remaining
26 30% goes to the distribution partner and operating fees." "The transaction fee for app purchases in
    Chrome Web Store is 5% of the app prices. In other words, developers get 95% of the purchase price."
27 *See   Google   Pay   Help*,   GOOGLE,
    https://support.google.com/paymentscenter/answer/7159343?hl=enhttps://support.google.com/payme
28 ntscenter/answer/7159343?hl=en-IN (last accessed Dec. 3, 2021).

20.19. By imposing supracompetitive fees on developers, Google extracts more money from developers than they would otherwise have to pay for the distribution of Android OS apps and the payment processing for in-app digital content. But for Google's exclusionary behavior, competition in the Android app distribution market (as well as the tied market for in-app payment processing) would have eroded Google's monopoly power and constrained its ability to impose supracompetitive prices.

21.20. In sum, Google's willful acquisition and maintenance of monopoly power in the markets identified, and its abuse of that power (among other things) to impose its supracompetitive distribution and in-app payment-processing fees on U.S. Android OS developers like Plaintiffs, are harmful to competition and, specifically, to developers.

22.21. Alternatively, if Google is found to be the purchaser of digital products from Android OS developers and to, in turn, sell those products to end-users via Google Play Store or otherwise, then Google acts as a monopsonist, or attempted monopsonist. (A monopsonist is a buy-side monopolist.) The circumstances, effects, and allegations are essentially the same for monopoly or attempted monopoly: Google uses its monopsony power to pay Android OS developers a price below the but-for price they would obtain in a competitive market for their apps and in-app products. Therefore, Plaintiffs' allegations herein should be understood to also plead in the alternative claims based on monopsony, both for Plaintiffs and the putative class. In either alternative, and as pleaded in this complaint, Google's behavior violates antitrust and consumer protection laws.

23.22. Plaintiffs seek monetary relief to redress the injuries caused by Google's past and ongoing conduct, and injunctive relief to stop Google's ongoing improper, unlawful, and harmful behavior in the relevant markets.

II.   JURISDICTION AND VENUE

24.23. This Court has subject matter jurisdiction over this action under 28 U.S.C. § 1331 because Plaintiffs allege violations of federal law, namely, the federal Sherman Act. The Court has supplemental jurisdiction over the Plaintiffs' state law claim pursuant to 28 U.S.C. § 1367(a).

25.24. This Court has personal jurisdiction over the Defendants. Google LLC and Google Payment are headquartered in this District. All Defendants have engaged in sufficient minimum

1 contacts with the United States and have purposefully availed themselves of the benefits and

2 protections of United States and California law, such that the exercise of jurisdiction over them would

3 comport with due process requirements. Further, the Defendants have consented to the exercise of

4 personal jurisdiction by this Court.

5   26.25. Venue is proper in this District pursuant to 28 U.S.C. § 1391(b) because Google LLC

6 and Google Payment maintain their principal places of business in the State of California and in this

7 District, because a substantial part of the events or omissions giving rise to Plaintiffs' claims occurred

8 in this District, and because, pursuant to 28 U.S.C. § 1391(c)(3), any Defendants not resident in the

9 United States may be sued in any judicial district and their joinder with others shall be disregarded in

10 determining proper venue. In the alternative, personal jurisdiction and venue also may be deemed

11 proper under Section 12 of the Clayton Antitrust Act, 15 U.S.C. § 22, because Defendants may be

12 found in or transact business in this District. Furthermore, the Google Play Terms of Service

13 incorporates the Google Terms of Service by reference, and the latter designates this judicial district

14 as the federal venue for this action.[16][15]

15   **III.   INTRA-DISTRICT ASSIGNMENT**

16   27.26. Pursuant to N.D. Cal. Civil Local Rule 3-2 and General Order 44, this antitrust class

17 action has been assigned on a district-wide basis and is not subject to reassignment on the basis of

18 intra-district venue.

19   **IV.   PARTIES**

20 **A.   The Plaintiffs**

21   28.27. Plaintiff Pure Sweat Basketball Inc. ("Pure Sweat Basketball") is an Illinois corporation

22 with its principal place of business in Crystal Lake, Illinois. It is the developer of the Pure Sweat

23 Basketball Workout App. Pure Sweat Basketball is a party to the developer contracts referenced in this

24

25   [16][15] *See* Google Play Terms of Service, https://play.google.com/about/play-terms/index.html,
which incorporates the Google Terms of Service, the latter of which is available at:
26 https://policies.google.com/terms ("California law will govern all disputes arising out of or relating to
these terms, service-specific additional terms, or any related services, regardless of conflict of laws
27 rules. These disputes will be resolved exclusively in the federal or state courts of Santa Clara County,
California, USA, and you and Google consent to personal jurisdiction in those courts.") (last accessed
28 AugDec. 153, 20202021).

FIRSTSECOND AMENDED CONSOLIDATED   - 8 -
CLASS ACTION COMPLAINT   Case No.: 3:20-cv-05792-JD
010803-11/1577289 V1010803-11/1709085 V1

1   complaint. These agreements specify the commission rate and pricing and other mandates described

2   herein. Also, in order to be permitted to make its app available in Google Play, and to sell non-zero

3   priced subscriptions through its app, Pure Sweat Basketball has paid Google's $25 developer fee. To

4   the best of its knowledge, Pure Sweat Basketball's last distributions of its app through Google Play,

5   and sales of subscriptions at non-zero prices through the app, have occurred this year. Pure Sweat

6   Basketball charges $4.99 monthly for its digital subscription product, or $49.99 annually, and it has

7   paid Google's supracompetitive commissions on these sales.

8   29.28. Alternatively, Google paid Pure Sweat Basketball what amounts to an artificially low

9   wholesale price for digital products sold via Google Play. Furthermore, Pure Sweat Basketball's in-

10   app subscription sales (like the app, if sold at above-zero prices) have always been subject to Google's

11   requirement that app transactions be priced at a minimum of $.99, as well as other pricing mandates.

12   Google has denied Pure Sweat Basketball the ability to choose to sell digital products at price points

13   below $.99, in efforts to achieve maximum sales and effect business plans as it would elect, to

14   Plaintiffs' detriment.

15   30.29. Plaintiff Peekya App Services, Inc. ("Peekya") is a Florida corporation with its

16   principal place of business in Sarasota, Florida. Peekya developed and maintains an app called

17   "*Peekya*" that has been and currently is distributed through Google Play. Peekya is a party to and has

18   complied with the Google-developer contracts that are described in this Complaint. In order to sell its

19   app through Google Play for $2.99, Peekya has paid Google's $25 developer fee. Within the four years

20   preceding the filing of this Complaint, Android mobile device users have purchased and downloaded

21   *Peekya*, and Peekya paid Google's supracompetitive commission on these sales. Furthermore,

22   Peekya's pricing of its app has always been subject to Google's requirement that app transactions be

23   priced at a minimum of $.99, as well as other pricing mandates. Google has denied Peekya the ability

24   to choose to sell digital products at price points below $.99, in efforts to achieve maximum sales and

25   effect business plans as it would elect, to Plaintiff's detriment.

26   30.   Plaintiff LittleHoots, LLC ("LittleHoots") is a limited liability company with its

27   principal place of business in Prairie Village, Kansas. LittleHoots develops a memory-keeping app—

28

REDACTED VERSION OF DOCUMENT SOUGHT TO BE SEALED

the "LittleHoots app"—that helps parents retain and share photographs, videos, and memorable quotes from their children. The LittleHoots app is distributed through Google Play and LittleHoots is a party to the developer contracts referenced in this Second Amended Complaint.

31.   As of the date of this Second Amended Complaint, LittleHoots makes a version of its app available for free. Users gain access to additional features by purchasing a LittleHoots Premium subscription. LittleHoots offers two subscription plans—specifically, a monthly plan priced at $5.99 per month, and an annual plan priced at $35.99 per year. Prior to adopting a subscription model, LittleHoots sold in-app digital products through its LittleHoots app.

32.   LittleHoots has sold subscriptions or in-app digital products through Google Play since 2016, including in 2021, and LittleHoots has paid Google's supracompetitive commissions on these sales. Also, in order to make its app available in Google Play, and to sell non-zero priced in-app products and subscriptions, LittleHoots has paid Google's $25 developer fee. In addition, LittleHoots has always been subject to Google's requirement that app transactions be priced at a minimum of $.99, as well as other pricing mandates.

B.   The Defendants

~~31.~~33. Defendant Google LLC is a Delaware limited liability company with its headquarters and principal place of business in Mountain View, California. It is the owner of Google Play Store, from and by which developers of Android apps sell paid applications, music, movies, books, and in-app products to Android device owners. Its parent, Alphabet Inc., was number 9 on last year's U.S. Fortune 500,[~~17~~16] with 2020 revenues of nearly $183 billion and profits of $40.269 billion.[~~18~~17]

~~32.~~34. Defendant Google Ireland Limited is a limited company organized under the laws of Ireland with its principal place of business in Dublin, Ireland, and a subsidiary of Google LLC. Google Ireland contracts with all app developers that distribute their apps through Google Play and is therefore a party to the anticompetitive contractual restrictions at issue in this complaint.

[~~17~~16] https://fortune.com/company/alphabet/fortune500/ (last accessed July 19, 2021).

[~~18~~17] *Id.*

33.35. Defendant Google Commerce Limited is a limited company organized under the laws of Ireland with its principal place of business in Dublin, Ireland, and a subsidiary of Google LLC. Google Commerce contracts with all app developers that distribute their apps through Google Play Store and is therefore a party to the anticompetitive contractual restrictions at issue in this complaint.

34.36. Defendant Google Asia Pacific Pte. Ltd. is a private limited company organized under the laws of Singapore with its principal place of business in Mapletree Business City, Singapore, and a subsidiary of Google LLC. Google Asia Pacific contracts with all app developers that distribute their apps through Google Play and is therefore a party to the anticompetitive contractual restrictions at issue in this complaint.

35.37. Defendant Google Payment Corp. is a Delaware corporation with its principal place of business in Mountain View, California, and a subsidiary of Google LLC. Google Payment provides in-app payment-processing to Android app developers and users and collects up to a 30% commission on many types of processed payments, including payments for apps sold through Google Play and in-app purchases made within such apps.

V.   RELEVANT FACTS

36.38. Google has injured Plaintiffs, the putative class of U.S. developers they seek to represent, and competition in the relevant markets, *see* Part VII, by way of its unlawful behavior in the U.S. markets for the sale of paid Android OS apps and for payment processing of in-app sales of digital content, including but not limited to subscriptions. As the holder of an unlawfully obtained monopoly, Google overcharges developers in these transactions by imposing a supracompetitive service fee on each paid sale from Google Play Store and on sales of in-app digital products through (the mandatory) Google Play Billing. Google has stifled competition in the U.S. market for Android OS app[1918] distribution by strongly inhibiting the emergence of vibrant—and viable—competitors, reinforcing its monopoly power.

[1918] Throughout this complaint, references to "Android OS apps" also refer to in-app purchases and paid subscriptions.

37.39.   Additionally, Google requires app developers to sell at minimum prices. There is no pro-competitive justification for this practice, and certainly none in an environment where Google Play holds a dominant share of the U.S. market for Android OS app distribution services.

A.   The Market for Licensable Smart Mobile Operating Systems

38.40.   Smart mobile devices like smart phones and tablets enable users to connect wirelessly to the Internet and perform many functions traditionally associated with desktop and laptop computers. Consumers use smart mobile devices to browse the Internet, shop, access social media, stream music and videos, read books, and play games.

39.41.   Like desktop and laptop computers, smart mobile devices require an operating system (an "OS"), which is a software product that controls the basic functions of the device. Without an operating system, the user cannot operate the device or run other software. Operating systems designed for smart mobile devices are "smart mobile OSs."

40.42.   In addition to the features typically found in a desktop or laptop computer OS, smart mobile OSs include features such as a touchscreen, cellular, Bluetooth, and Wi-Fi capabilities, GPS mobile navigation, cameras, video cameras, speech recognition capability, voice recorders, music players, personal digital assistants and other features.

41.43.   Licensable smart mobile OSs constitute a distinct product market. Although desktop and laptop computers, early mobile phones (like flip phones) and game consoles also use operating systems, those operating systems are not compatible with smart mobile devices and are not included in the relevant market. From the demand side, the manufacturers of smart mobile devices cannot use the operating systems found in computers, older flip phones, or game consoles to power their smart mobile devices. From the supply side, any OS developer that switched from a computer, flip phone, or game console-compatible OS to a smart mobile OS would have to invest substantial time and money in redesigning the operating system to account for the specific functionalities of smart mobile devices.

42.44.   As the Congressional committee recently found, Google has "durable and persistent market power" in this "mobile operating system market."[2019] This was not a groundbreaking

---

[2019] House Report at 94.

conclusion. Following a years-long investigation, the European Commission ("EC" or "Commission") concluded in a July 18, 2018 decision that had Google abused its dominant power in the Android app distribution market by tying Google Search to Google Play Store, and by tying Google Chrome to Google Play Store and Google Search. The Commission ordered Google to pay a $5.1 billion fine and to change its practices. Google is currently appealing the decision. Notably, Google has publicly stated that it has complied with the Commission's conduct remedies by changing its contracts with manufacturers that ship phones and tablets into the European Economic Area.

43.45. Google did not contest the Commission's conclusion that smart mobile OSs constitute a distinct product market.

44.46. Smart phone OSs and tablet OSs make up the smart mobile OS product market. From the demand side, the same operating system, or similar versions of it, power both smartphones and tablets. From the supply side, all the principal OS developers use the same operating system to power both smartphones and tablets. Apple, for example, which makes both the operating system and hardware for its smartphones and tablets, has confirmed that it uses a single OS for its iPhone and iPad. And Google did not contest the European Commission's conclusion that smart phone and tablet OSs belong in the same product market.

45.47. OEMs preinstall smart mobile OSs on devices before selling them to retailers and end users. Most device manufacturers do not develop their own OSs but instead license Google's Android OS. The most widely used mobile non-Android OS outside of China is Apple's iOS. But because Apple manufactures its own smart phones and tablets and does not license its operating system to OEMs, Apple's iOS is not an option for OEMs.

46.48. Non-licensable smart mobile OSs (like Apple's iOS) do not belong to the same product market as licensable smart mobile OSs. From the demand side, OEMs cannot obtain a license to preinstall Apple's iOS because Apple does not license iOS to OEMs. As even Google has conceded, OEMs cannot switch to non-licensable OSs such as iOS.

47.49. Apple's strategy of remaining vertically integrated within its "walled garden" and selling luxury products to loyal customers has been wildly successful. What other company has

1 exceeded a market capitalization of $2 trillion? As device manufacturer Nokia put it: "Apple has no

2 incentives to enter the market for licensable OS[s] by starting to license iOS to third-party device

3 manufacturers. This is because Apple currently holds a monopoly over the supply of iOS compatible

4 devices. Apple makes most of its mobile profits with device sales and opening the system for third

5 party device manufacturer competition would be likely to erode Apple's device profits. […] Apple

6 does not need to expand its ecosystem in order to attract developers."[21][20]

7 ~~48.~~50. The European Commission concluded that Apple's iOS "exercises an insufficient

8 indirect constraint on Google's dominant position in the worldwide (excluding China) market for

9 licensable smart mobile OSs," confirming that iOS should not be included in the relevant market for

10 licensable smart mobile OSs.[22][21]

11 ~~49.~~51. Google has monopoly power in the market for licensable smart mobile OSs. This

12 monopoly power is demonstrated by Google's market share, the existence of high barriers to entry and

13 expansion, the lack of countervailing buyer power, and the lack of constraint posed by non-licensable

14 smart mobile OSs like Apple's iOS.

15 52. The relevant geographic market for licensable smart mobile OSs is worldwide

16 (excluding China). Alternatively, the United States is a relevant geographic market for licensable

17 smart mobile OSs.

18 ~~50.~~53. The EC found that, excluding China, the Android OS is installed on more than 95% of

19 smart mobile devices with licensed mobile OSs worldwide. In the United States, that percentage

20 appears to be in excess of 95%. As of July 2020, 98.85% of smartphones with licensed mobile OSs

21 were powered by Android, compared to just 0.15% for other licensed mobile OSs (Samsung's share

22 was 0.11%; Windows was 0.02%, and "unknown" was 0.02%). For that same period, Windows, Linux

23 and "unknown" licensable mobile OSs collectively powered only 0.17% of tablets, leaving the

---

[21][20] Statement in Intervention by Bundesverband Digitalpublisher und Zeitungsverleger e.V. (*Google LLC v. European Comm'n*), Case No. T-604/18, at ¶ 41 n.31 (June 26, 2020) ("BDZV Intervention").

[22][21] *See* European Commission, *Google Android*, Case AT 40099, Commission Decision of 18 July 2018, at ¶243, §§7.3.5 & 9.3.4, available at https://ec.europa.eu/competition/antitrust/cases/dec_docs/40099/40099_9993_3.pdf (last accessed Oct. 21, 2020).

1 remaining 98.83% to Google. There also has been very little competitor entry, while at the same time

2 "once-competitive mobile operating systems like Nokia, BlackBerry, and Microsoft struggled to

3 survive as Apple and Google grew more dominant, eventually exiting the marketplace altogether."[~~23~~22]

4 The only other licensable smart mobile OSs that have entered the market since 2011 have not made a

5 dent in Google's market share. The most prominent competitor—Microsoft—dropped below 2%

6 market share in 2016 and exited the market shortly thereafter.[~~24~~23] The other providers, including

7 Firefox OS, Tizen and Sailfish, have been unable to gain more than 0.2% market share. As the House

8 Subcommittee reported, "[i]ndustry experts have testified before the Subcommittee that the 'reality is

9 that it would be very difficult for a new mobile phone operating system today' to compete with Apple

10 and Google, 'even if it offered better features.'"[~~25~~24]

11   ~~51.~~54. The market for licensable smart mobile OSs is characterized by high barriers to entry

12 and expansion. First, development of a smart mobile OS requires an enormous investment of time and

13 money in research and development. Google says, for example, that it subsidized the development of

14 Android through advertising revenue derived from Google Search and Chrome.

15   ~~52.~~55. According to findings by the Commission, Google's monopoly power in OSs is also

16 supported by the lack of countervailing buyer power among OEMs. There are numerous OEMs that

17 license Android OS for preinstallation in smart mobile devices. Of these, only Samsung had more than

18 a 10% market share, demonstrating the diffusion of buyer power. This lack of buyer power is further

19 evidenced by the apparently limited nature of the negotiations that occur between Google and OEMs

20 when OEMs enter into licensing agreements with Google. The agreements are signed online, with the

21 device manufacturer representative merely providing contact information and clicking in the relevant

22 box accepting the terms and conditions of the agreement.

23

24 [~~23~~22] House Report at 106; *see id.* at 105 ("Over the past decade, several large technology companies
25 have attempted and failed to leverage their large user bases to compete against Apple and Google in
the mobile OS market.") (citation omitted).

26 [~~24~~23] *See id.* at 106 ("In 2017 Microsoft abandoned its mobile OS business, and by that time, more
than 99% of all new smartphones were running on iOS or Android and market observers expressed no
27 confidence that new competition would emerge.") (citation omitted).

28 [~~25~~24] *Id.* at 104 (citations omitted).

~~FIRST~~SECOND AMENDED CONSOLIDATED   - 15 -
CLASS ACTION COMPLAINT   Case No.: 3:20-cv-05792-JD
~~010803-11/1577289 V1~~010803-11/1709085 V1

53.56. Nor does Apple's non-licensable iOS impose sufficient indirect constraints to undermine Google's monopoly power in the market for licensable smart mobile OSs. As the Commission concluded, there are several reasons why Apple's iOS does not inhibit Google's monopoly power. First, "there is significant inertia in the choice of operating system and smartphone brand."[2625] High switching costs deter consumers from switching between OS systems. More importantly, even if some consumers switched from Android to iOS devices, as long as there is no significant changes in market shares of Android and iOS devices, the high switching cost for device manufacturers would be maintained. The high switching costs reflect Apple's and Google's different commercial strategies. Apple's vertically integrated approach is aimed at keeping its affluent, loyal customers in Apple's ecosystem, and purchasing its hardware and services, which generates the bulk of Apple's revenue. Of Apple's revenue for the third quarter of 2020, 78% was based in hardware such as iPhones, MacBooks, iPads and wearables. Google, on the other hand, wants to put Android devices in as many hands as possible to ensure its continued domination of search advertising, which generates the bulk of Google's revenue. In the first quarter of 2018, for example, 82% of Google's revenue came from advertising. As the Netherlands Authority for Consumers & Markets put it in a recent study[2726]: "In contrast to Apple and Microsoft, Android was not developed by Google to generate revenues through the sale of software or hardware. Android, apps, and the Play Store are only a means to an end to become embedded everywhere on the internet, and to increase the audience for its services so it can create more advertising space." As the House Subcommittee found, information collected via Android and Google Play Store gave Google "intimate user profiles, spanning billions of people," which are "a key source of Google's advantage in its ad business."[2827]

[2625] Grzybowski, L. and Nicolle, A., 2021. Estimating Consumer Inertia in Repeated Choices of Smartphones. *The Journal of Industrial Economics*, 69(1), pp.33-82 at p. 34.

[2726] The Netherlands Authority for Consumers & Markets, "Market Study into Mobile App Stores" (April 11, 2019) ("Market Study") at 28, https://www.acm.nl/sites/default/files/documents/market-study-into-mobile-app-stores.pdf (last accessed Oct. 21, 2020).

[2827] House Report at 217-18.

B.   The Google Play Store

54.57.   Google introduced its app store, then known as Android Market, in or about August 2008.[2928] Within weeks, Google, HTC, and T-Mobile released the first Android OS smartphone, the T-Mobile G-1.[3029] This very first released-to-consumer Android OS smartphone came pre-loaded with the Android Market (the predecessor to Google Play Store). As T-Mobile's September 2008 press release explained:

> **Android Market:**
>
> The T-Mobile G1 is the first phone to offer access to Android Market, which hosts unique applications and mash ups of existing and new services from developers around the world. With just a couple of short clicks, customers can find and download a wide range of innovative software applications — from games to social networking and on-the-go shopping — to personalize their phone and enhance their mobile lifestyle. When the phone launches next month, dozens of unique, first-of-a-kind Android applications will be available for download on Android Market . . . .[3130]

55.58.   Next, on or about March 6, 2012,[3231] Google introduced its Google Play Store, which both succeeded and subsumed its predecessor, Android Market, adding digitized music and books to the store's offerings.[3332] It now carries movies and television programs as well.[3433]

[2928] Google launched Android Market, Google Play's predecessor for Android OS Apps, on or about August 28, 2008. (*See, e.g.*, https://www.cnet.com/news/google-announces-android-market-for-phone-apps/ (dated Aug. 28, 2008) (last accessed Aug. 15, 2020).)

[3029] "T-Mobile Unveils the T-Mobile G1—the First Phone Powered by Android," dated September 22 (and 23), 2008, https://www.t-mobile.com/news/t-mobile-unveils-the-t-mobile-g1-the-first-phone-powered-by (last accessed Aug. 15, 2020).

[3130] *Id.*

[3231] https://googleblog.blogspot.com/2012/03/introducing-google-play-all-your.html (last accessed Aug. 15, 2020).

[3332] *Id.* ("Starting today, Android Market, Google Music and the Google eBookstore will become part of Google Play. On your Android phone or tablet, we'll be upgrading the Android Market app to the Google Play Store app over the coming days.").

[3433] https://play.google.com/store/apps/details?id=com.google.android.videos&hl=en_US (last accessed Aug. 15, 2020).

1   56.59. To sell products through Google Play Store, app developers[3534] must enter into the

2   Google Play Developer Distribution Agreement ("DDA").[3635] The developer then uploads its product

3   to Google servers for review, testing (if any), limited release (if any), and production-release for sale

4   to consumers in the store.[3736] As part of the process, the developer "authorize[s] Google on a non-

5   exclusive, worldwide, and royalty-free license to . . . reproduce, perform, display, analyze, and use

6   [the developer's] Products" "in the manner indicated in the Play Console."[3837] The Google DDA states

7   that Google agrees to "display and make [developers'] Products available for viewing, download, and

8   purchase by users" [3938] in Google Play for a "'Service Fee,' … charged on the sales price and

9   apportioned to the Payment Processer and, if one exists, the Authorized Provider."[4039]

10   57.60. Developers ostensibly set prices for products sold in the Google Play Store. But

11   Google's DDA (more specifically, its incorporated terms or policies) requires that non-zero-priced

12   products be sold to U.S. consumers at a regular price of no less than $0.99 (and no more than $400).[4140]

13   For example, developers cannot sell apps in the United States at $0.69. The DDA has allowed for

---

[3534] Except presumably Google, which also offers its own products—including paid products—in the Google Play store. (*See* https://play.google.com/store/apps/details?id=com.google.android.apps. youtube.music&hl=en (offering YouTube Music app in Google Play, and referring to the paid Music Premium version that is also available) (last accessed Aug. 15, 2020).

[3635] Dev. Agr. (current agreement, effective as of Nov. 17, 2020) ("Dev. Agr."), *available at* https://play.google.com/about/developer-distribution-agreement.html (last accessed ~~July 20~~Dec. 3, 2021). For the pre-November 2020 version, also *see* https://play.google.com/about/developer-distribution-agreement/archive.html (last accessed ~~July 20~~Dec. 3, 2021).

[3736] *Id.* ¶ 4.2 ("You are responsible for uploading Your Products to Google Play, providing required Product information and support to users, and accurately disclosing the permissions necessary for the Product to function on user Devices.") (last accessed July 20, 2021); https://support.google.com/googleplay/android-developer/answer/113469?hl=en ("Upload an app") (last accessed Aug. 15, 2020); https://support.google.com/googleplay/android-developer/answer/7159011? ("Prepare & roll out releases") (last accessed Aug. 15, 2020).

[3837] *Id.* ¶ 5.1.

[3938] *Id.* ¶ 2.1.

[4039] *Id.* ¶ 3.4.

[4140] *Id.* ¶ 5.2 (referring to sales to be made "in the manner indicated in the Play Console"). The Play Console, and Play Console help sections, set forth the minimum pricing requirements: *see* https://support.google.com/googleplay/android-developer/answer/6334373?hl=en (~~"Set up~~ your app's prices~~ & app distribution~~") (last accessed ~~July 20~~Dec. 3, 2021); https://support.google.com/googleplay/android-developer/table/3541286? ("Supported locations for distribution to Google Play users") (last accessed ~~July 20~~Dec. 3, 2021).

1   ~~lower~~other minimum prices in 18 other countries since 2015~~).⁴²~~~~Thus, an app that must be priced at no~~

2   ~~lower than $0.99 for U.S. customers can be priced at approximately $0.13 for Indian purchasers (as of~~

3   ~~August 15, 2020).⁴³⁴¹~~

4   ~~58.~~61.   Developers sell their apps and in-app digital content⁴⁴⁴²,⁴⁵⁴³ directly through the Google

5   Play Store (for apps) and Google Play Billing (for in-app digital content). Consumers select apps from

6   the displays that Google organizes and sets up; tender payments to Google; and download apps from

7   the Google Play Store to their devices.⁴⁶⁴⁴

8   ~~59.~~62.   Developers, in turn, pay Google a default "service fee" of 30% ~~(or 15%)~~ on each paid

9   sale of an app and most in-app digital products.

10   ~~60.~~63.   Developers are directly injured by Google's supracompetitive service fee—a fee that

11   would be lower in a competitive market free of Google's restraints.

12

---

13   ~~⁴² See, e.g., "Google slashes minimum app prices to way below $0.99 in 17 countries," Mashable,~~
14   ~~Nov. 18, 2015, available at: https://mashable.com/2015/11/18/google-minimum-app-prices/#JluQdT6ebEqd (last accessed Aug. 15, 2020).~~

15   ~~⁴³ https://support.google.com/googleplay/android-developer/table/3541286 (apps for Indian~~
16   ~~consumers may be priced from between 10.00 INR to 26,000.00 INR, or approximately $.13 to $347.11, as of Aug. 15, 2020 see https://transferwise.com/us/currency-converter/inr-to-usd-~~
17   ~~rate?amount=10~~⁴¹ *See, e.g.*, "Google slashes minimum app prices to way below $0.99 in 17 countries," *Mashable*, Nov. 18, 2015, available at: https://mashable.com/2015/11/18/google-minimum-app-prices/#JluQdT6ebEqd (last accessed Aug. 15, 2020)~~). There is no evidence that Google is somehow~~
18   ~~losing money by way of this contractual practice. But even if it were, then it would mean that U.S. developers (and consumers) are subsidizing app purchases in other countries (through higher U.S.~~
19   ~~minimum prices) because of Google's restraint of trade.~~

20   ⁴⁴⁴² *See, e.g.,* https://support.google.com/googleplay/answer/1061913?hl=en&ref_topic=7049688# ("Make in-app purchases in Android apps") ("With some apps, you can buy additional content or services within the app. We call these 'in-app purchases.' Here are some examples of in-app purchases: A sword that gives you more power in a game . . . .") (last accessed ~~Aug~~Dec. ~~15~~3, ~~2020~~2021).

22   ⁴⁵⁴³ *See* https://support.google.com/googleplay/answer/2476088?hl=en&ref_topic=1689236 ("Subscribe to services or content") (referring to subscriptions to magazines, newspapers, and other material, and explaining how to subscribe) (last accessed ~~Aug~~Dec. ~~15~~3, ~~2020~~2021).

24   ⁴⁶⁴⁴ *See, e.g.,* https://support.google.com/googleplay/answer/4355207?hl=en&ref_topic=3364260&co=GENIE.Platform%3DAndroid&oco=1 ("Get started with Google Play"-Android) (last accessed ~~Feb~~Dec. ~~1~~3, ~~2019~~2021); https://support.google.com/googleplay/answer/113409?hl=en&ref_topic=3365058 ("Get Android apps and digital content from the Google Play Store") ("1. ~~Open~~[O]pen the Google Play Store ~~app.~~ . 2. Search or browse for content. 3. Select an item. 4. ~~Tap~~Select Install ~~(for free items)~~ or the item's price. 5. Follow the onscreen instructions to complete the transaction and get the content.") (last accessed ~~Aug~~Dec. ~~15~~3, ~~2020~~2021).

C.   While the Android OS is Superficially Open-Source, Google Leveraged a Thicket of Contracts ~~and,~~ Incentive Payments, and Technological Impediments to Maintain an Iron Grip on the Ecosystem and to Cement Play's Dominance.

~~61.~~64.   Google owns and controls the Android OS. Ostensibly, the code for the operating system itself is open source. According to Google, anyone can download, use, and modify the Android OS source code, as long as Google allows it. Google calls this aspect of its OS the Android Open Source Project (AOSP). As Google[47][45] puts it:

> Android is an open source operating system for mobile devices and a corresponding open source project led by Google. This site and the Android Open Source Project (AOSP) repository offer the information and source code needed to create custom variants of the Android OS, port devices and accessories to the Android platform, and ensure devices meet the compatibility requirements that keep the Android ecosystem a healthy and stable environment for millions of users. . . .[48][46]

~~62.~~65.   But the open-source code enables only a device's most basic functions. As Google explains: "The Android Open-Source Project (AOSP) is the core software stack behind the Android OS and consists of the operating system, middleware, and open-source apps like a phone dialer, email, and messaging. Mobile operators, device makers, and developers can use this to build devices and apps."[49][47]

~~63.~~66.   Google obtained and maintains monopoly power in the ~~U.S.~~ market for Android OS apps through, in part, three interlocking types of contractual agreements with OEMs: (1) Anti-Fragmentation Agreements ("AFAs") and Android Compatibility Commitments ("ACCs")[50][48], which generally prohibit "forking" (i.e., making or distributing versions of Android not compliant with Google technical standards); (2) MADA agreements ("MADAs"), which grant access to key Google

---

[47][45] "Android was originated by a group of companies known as the Open Handset Alliance, led by Google. . . . The Android Open Source Project is led by Google, who maintains and further develops Android." (https://source.android.com/setup/ (last accessed Aug. 15, 2020).)

[48][46] https://source.android.com/ (last accessed Aug. 15, 2020).

[49][47] "Understanding Android," https://www.android.com/everyone/facts/ (last accessed Aug. 15, 2020).

[50][48] Before 2017, Google required distributors to sign AFAs. It has since shifted its anti-forking restrictions to ACCs, which allow manufacturers to build devices or components for third parties to sell to consumers that do not comply with Google's technical standards (while still restricting signatories from manufacturing or distributing forks of their own, or from making "forked" devices on behalf of third parties).

1 apps and critical application program interfaces ("APIs"); and (3) revenue-sharing agreements, in the

2 form of Mobile Incentive Agreements ("MIAs") and Revenue Share Agreements ("RSAs"), which

3 allow OEMs to share in Google's revenue in exchange for abiding by various restrictions in favor of

4 Google. Under the RSAs and MIAs, Google shares its search ad revenue in exchange for OEMs'

5 agreement to use Google search as the sole preset search service on a list of "search access points"

6 and, under certain MIAs, to forego preinstalling rival general search services and comply with certain

7 "incentive implementation requirements."⁵¹⁴⁹ And as explained in more detail below, since 2019,

8 Google has also used RSAs with certain OEMs to more explicitly foreclose other channels of app

9 distribution—agreeing to share revenue generated by the Google Play Store, in addition to the search-

10 ad revenue, in exchange for OEMs' agreement to Google Play Store exclusivity, as well as other

11 preinstallation restrictions aimed at foreclosing potential apps and app distributors.

12   64.67. These agreements are explicitly linked. An OEM can enter a MADA Agreement and

13 receive access to key Google apps and critical application program interfaces only if it first enters an

14 AFA or ACC. Similarly, an OEM can enter an RSA or MIA only if it first enters a MADA:
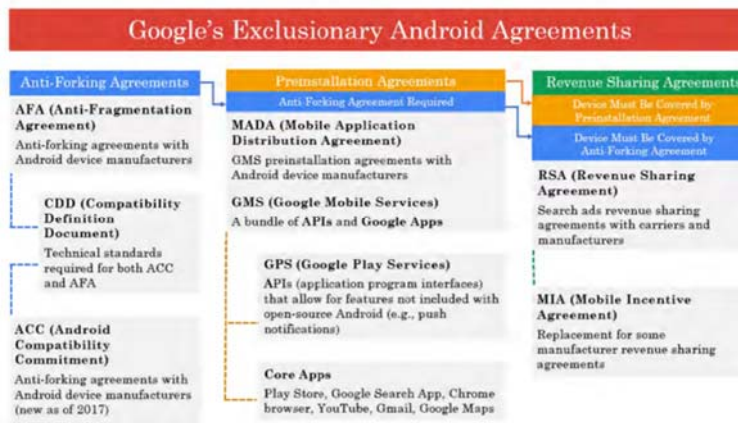
⁵¹⁴⁹ These implementation requirements sometimes mandate, among other things, preloading up to fourteen additional Google apps on MIA-enrolled devices.

FIRSTSECOND AMENDED CONSOLIDATED   - 21 -
CLASS ACTION COMPLAINT   Case No.: 3:20-cv-05792-JD
010803-11/1577289 V1010803-11/1709085 V1

65.68.   Google's logic is simple: what makes a mobile device marketable is its apps. Google has developed several popular apps, including YouTube, Google Maps, Gmail, and Google Play Store, that are not open source. Any OEMs seeking access to those key apps must get a license, which is available only to OEMs that agree (pursuant to the MADA and license agreements) to preinstall these Google apps on their Android OS devices. Indeed, for devices sold into the United States, these Google apps are bundled as a suite, so OEMs that want to license one app must preinstall them all.[52][50] Google touts this program as Google Mobile Services ("GMS"):

> The best of Google, right on your devices
>
> Google Mobile Services brings Google's most popular apps and APIs
> to your Android devices.
>
> Google's most popular apps, all in one place
>
> Google Mobile Services (GMS) is a collection of Google applications
> and APIs that help support functionality across devices. These apps
> work together seamlessly to ensure your device provides a great user
> experience right out of the box.[53][51]

66.69.   GMS is a crucial element of Google's domination of the Android ecosystem. Indeed, the GMS restrictions "have strictly limited—if not excluded—third-party apps from being preinstalled. In this way, Google's licensing agreements not only preclude the vast majority of third-party apps from being preinstalled, but they also funnel those apps into the Google Play Store, subject to Google's commissions and arbitrary enforced policies."[54][52]

67.70.   Over time, Google has moved more and more apps into its proprietary, non-open-source universe of apps, as well as services that make third-party apps work effectively, in ways that users have come to expect (e.g., by calling up map services, now through the proprietary Google Maps). As one analyst describes Google's machinations:

---

[52][50] "After building an Android compatible device, consider licensing Google Mobile Services (GMS), Google's proprietary suite of apps (Google Play, YouTube, Google Maps, Gmail, and more) that run on top of Android. GMS is not part of the Android Open Source Project and is available only through a license with Google." (https://source.android.com/compatibility/overview (last accessed Aug. 15, 2020).)

[53][51] https://www.android.com/gms/ (last accessed Aug. 15, 2020).

[54][52] House Report at 222-23.

Over time, Google began migrating applications – like Search, Music, and the Calendar – out of AOSP and into GMS. Any OEM wanting to use AOSP to build its own Android fork would now have to build their own versions of these apps, on top of email, maps, and so on. (*Ars Technica* has a good rundown of the application migration here[55][53].) On top of that, the device would lack the Google services APIs that lots of third-party apps need. And Google didn't stop there. Google Mobile Services mutated into Google Play Services[56][54] in September 2012.

A fork in the road: Why Google Play Services is key to understanding the 'forking' question

Back in May 2013 at the Google I/O Keynote there was no mention of an Android upgrade. Instead, Google announced a bunch of new features to be rolled out to Android devices via Google Play Services. Google had started to move away from Android-as-platform to Play Services-as-platform. As Ron Amadeo writes: 'Play Services has system-level powers, but it's updatable. It's part of the Google apps package, so it's not open source. OEMs are not allowed to modify it, making it completely under Google's control… If you ever question the power of Google Play Services, try disabling it. Nearly every Google App on your device will break.' It is 'a single place that brings in all of Google's APIs on Android 2.2 and above.' Things like Play Game services, Google Cloud Messaging and fused location services are all handled by Play Services, and not the OS.

---

[55][53] https://arstechnica.com/gadgets/2018/07/googles-iron-grip-on-android-controlling-open-source-by-any-means-necessary/ (last visited July 19, 2021).

[56][54] Google Play services is different from the Google Play store. In fact, one method of distribution is via Google Play. (*See, e.g.*, https://play.google.com/store/apps/details?id=com.google.android.gms&hl=en_US ("Google Play services is used to update Google apps and apps from Google Play. This component provides core functionality like authentication to your Google services, synchronized contacts, access to all the latest user privacy settings, and higher quality, lower-powered location based services.") (last accessed Aug. 15, 2020).) In its Overview of Google Play Services, Google writes:

With Google Play services, your app can take advantage of the latest, Google-powered features such as Maps, Google+, and more, with automatic platform updates distributed as an APK through the Google Play store. This makes it faster for your users to receive updates and easier for you to integrate the newest that Google has to offer.

* * *

The client library contains the interfaces to the individual Google services and allows you to obtain authorization from users to gain access to these services with their credentials.

https://developers.google.com/android/guides/overview (last accessed Aug. 15, 2020).

68.71. As noted above, one important condition for access to GMS is that manufacturers agree to comply with so-called compatibility requirements set forth in AFAs and ACCs. As Google puts it:

> We ask GMS partners to pass a simple compatibility test and adhere to our compatibility requirements for their Android devices. In turn, your users enjoy greater app reliability and continuity.[5755]

69.72. Ostensibly, Google seeks compatibility to help assure that software works across a variety of devices. But Google has gone further than merely requiring compatibility testing for devices on which manufacturers wish to install the GMS suite. As part of its strategy to maintain as much dominance over the Android ecosystem as possible, Google refuses (as a condition of its MADA agreements) to license GMS to manufacturers who develop "Android forks"—variants of the official Android OS published by Google. As the European Commission put it with respect to the record antitrust fine it imposed on Google in 2018 (discussed *infra*[5856]):

> Google has prevented device manufacturers from using any alternative version of Android that was not approved by Google (Android forks). In order to be able to pre-install on their devices Google's proprietary apps, including the Play Store and Google Search, manufacturers had to commit not to develop or sell even a single device running on an Android fork. The Commission found that this conduct was abusive as of 2011, which is the date Google became dominant in the market for app stores for the Android mobile operating system.[5957]

70.73. According to the European Commission, this has thwarted even as powerful a potential competitor as Amazon. Manufacturers that want access to GMS are prohibited by way of the AFA contractual terms from building even a single device based on Amazon's Android OS fork, known as Fire OS. As discussed below, this means that Amazon is denied another way to distribute its own Android OS app store.[6058]

[5755] https://www.android.com/gms/ (last accessed July 20, 2021).

[5856] *See* Section V.F.1, *infra*.

[5957] *See* "Antitrust: Commission fines Google €4.34 billion for illegal practices regarding Android mobile devices to strengthen dominance of Google's search engine," July 18, 2018, http://europa.eu/rapid/press-release_IP-18-4581_en.htm (last accessed Aug. 15, 2020).

[6058] Per the European Commission:

> This practice reduced the opportunity for devices running on Android forks to be developed and sold. For example, the Commission has found evidence that Google's

71. 74. There is no justifiable basis for Google's restraints with regard to Android forks. As the European antitrust authorities found, Google's stated aim—to help ensure that software works across various Android OS devices—does not require or justify the restraints on competition that Google forces upon OEMs:

> The Commission also assessed in detail Google's arguments that these restrictions were necessary to prevent a "fragmentation" of the Android ecosystem, and concluded that these were not well founded. First, Google could have ensured that Android devices using Google proprietary apps and services were compliant with Google's technical requirements, without preventing the emergence of Android forks. Second, Google did not provide any credible evidence that Android forks would be affected by technical failures or fail to support apps.[61][59]

72. 75. Google further exercises control over the market by bundling the Google Play Store with Google Play Services, a proprietary software layer that runs in the background on Android. It provides application programming interfaces that enable apps to integrate with other apps and with Google services. Many of these Google services are critical to the functioning of apps. Without Google Play Services, for example, apps cannot provide crucial functionalities like displaying "push notifications" or locating a user's location on a map—thus rendering them, in many cases, commercially irrelevant.[62][60] As another example, more than half of the apps in Google Play use Google's cloud messaging service; nearly half use AdMob, Google's mobile advertising service. Apps

---

conduct prevented a number of large manufacturers from developing and selling devices based on Amazon's Android fork called "Fire OS."

In doing so, Google has also closed off an important channel for competitors to introduce apps and services, in particular general search services, which could be pre-installed on Android forks.

http://europa.eu/rapid/press-release_IP-18-4581_en.htm (emphasis added).

[61][59] *Id.*

[62][60] "A [push] notification is a message that pops up on the user's device. Notifications can be triggered locally by an open application, or they can be "pushed" form the server to the user even when the app is not running. They allow [an app's] users to opt-in to timely updates and allow [apps] to effectively re-engage users with customized content. Push Notifications API lets the app display system notifications to the user. The Push API allows a service worker to handle Push Messages from a server, even with the app is not active. The Notification and Push APIs are built on top of the Service Worker API, which responds to push message events in the background and relays them to [an] application." *Introduction to Push Notifications*, GOOGLE, https://developers.google.com/web/ilt/pwa/introduction-to-push-notifications.

REDACTED VERSION OF DOCUMENT SOUGHT TO BE SEALED

1   cannot access these functionalities without Google Play Services. As the European Commission

2   concluded, without Google Play Services, "many apps would either crash, or lack important

3   functions."

4   73.76. Market participants agree that access to the Google Play Services bundle is critical.

5   According to one mobile network operator, "without [Google Play Services] the Android OS would

6   be more like a feature phone OS than a smartphone OS." ("Feature phones," colloquially known as

7   "dumb phones," are earlier-generation phones with simple operating systems and user interfaces).

8   74.77. Google does not license Google Play and Google Play Services separately. They can

9   only be licensed together, thus further entrenching Google Play's dominance to the exclusion of

10 competitors.

11   75.78. Google has also entered into separate Mobile Search revenue-sharing agreements with

12 OEMs and phone carriers—agreements that date to the earliest days of Android in 2009 and are aimed

13 at ensuring the dominance of Google search on mobile devices and requiring the pre-installation of

14 additional apps.

15   76.79. Specifically, shortly after the launch of the Android Market (the predecessor to Google

16 Play Store), Google began looking for ways to discourage phone carriers from creating their own app

17 stores. To accomplish that goal, Google entered into revenue-sharing agreements with various carriers.

18 Under those agreements, for any given app purchase, the app developers would typically receive 70%

19 of a given purchase, the carriers would receive 25%, and Google would receive the remaining 5% for

20 its "operating and transaction costs."[6361] In return, the carriers were obligated to preinstall Google's

21 app store.[6462] Google understood and intended that the revenue-sharing agreements would lead the

22 carriers to give up any plans for their own app stores: Google knew in 2009 that "[m]obile operators

23

24   [6361] For example, a 2011 agreement between [**REDACTED**] and Google states that "Developers
    who sell Android Products to End Users through the Android Market will be paid (by Google)
    [**REDACTED**]. Google will pay [**REDACTED**] to reimburse Google for transaction processing costs
25 and costs for operating the Android Market. For the avoidance of doubt, Google does not intend to
    make a profit from the [**REDACTED**] that is allocated for Android Market transaction processing and
26 operating costs."

27   [6462] For example, Google's revenue share deal with Verizon required Verizon to preload "Android
    Market app store on all Android devices." During negotiations Google "[e]mphasized this is
28 fundamental, and critical ask from us."

[were] not willing to give up the revenue stream on content distribution" and would "block market if we don't share revenue." Thus, these payments "[p]rovide[d] an incentive for operators to distribute Android Market" by "offset[ing the] opportunity cost" of creating competing app stores.

77.80. This plan was successful. As Google explained proudly in a 2014 presentation, quoting a senior executive: "We cut carriers in to disincentivize building their own stores and fragmenting the ecosystem. It worked." And having succeeded, by 2016, Google shifted its revenue sharing to focus on Search, approving approximately $2.2 billion of 2017 RSA spending. The numbers have only increased since.

78.81. On top of this, Google prohibits app developers that distribute apps through the Google Play Store from distributing any competing *app store* through Google Play. Although this would be a logical and effective way to distribute app stores—which are themselves mobile apps—Google prohibits this distribution method to maintain its monopoly in the app-distribution market.

79.82. Google imposes this restraint through provisions of the DDA, which Google requires all app developers to sign before they can distribute their apps through Google Play Store. Each of the Defendants is a party to the DDA.

80.83. Section 4.5 of the DDA provides that developers "may not use Google Play to distribute or make available any Product that has a purpose that facilitates the distribution of software applications and games for use on Android devices outside of Google Play." [6563] In other words, no app on the Google Play Store may compete in the Android app distribution market. The DDA further reserves to Google the right to remove and disable any Android app that it determines violates this requirement. The DDA is non-negotiable, and developers that seek access to Android users through the Google Play Store must accept Google's standardized contract of adhesion. The House Subcommittee reported developers' allegations that Google has used "rule violations as a pretext for retaliatory conduct," and that "challenging a Play Store decision is like navigating a black box," because Google does not explain its determination that a rule violation supposedly occurred. [6664]

[6563] Dev. Agr. ¶ 4.5

[6664] House Report at 222.

81.84. Google has imposed this restriction since at least 2009, when the section was labeled "Non-Compete" and applied to distribution through Android Market (Google Play Store's predecessor). Over time, Google has tightened the anticompetitive restrictions in section 4.5 in response to specific threats posed by app-distribution competitors such as Amazon and Facebook.

82.85. The original language of the DDA was limited to apps that had a "primary purpose" of facilitating distribution of apps outside the Android Market, which allowed some flexibility for developers to use Google's app store to distribute Android apps that also linked to apps that could be downloaded outside Google's app store. In 2012, however, when Amazon attempted to distribute its app store to consumers directly through its Amazon Store app, distributed on the Google Play Store, Google took swift action. At the time, Amazon used a browser within the app to direct users to a page to download Android application files, which use the extension ".apk." This effectively allowed customers to download Amazon apps without going through Google Play Store. Google alleged this was a violation of the DDA agreement and threatened to remove Amazon from the Play Store, days before Black Friday.

83.86. Wise to the threat of similar entrants, Google eventually changed its policy in direct response to the Amazon Store app. In September 2014, Google updated Section 4.5 of the DDA to "provide additional clarity around the distribution of third-party apps on Google Play to maintain a secure ecosystem." Eventually, Amazon was forced to disable app distribution functionality from its App distributed through Google Play Store, and its app store was only available via sideloading, a process that makes it significantly harder to reach Android users for the reasons discussed in Section V.F.2.

D.   Google Is a Monopolist in the U.S. Markets for Android OS App Distribution and In-App Payment Processing.

84.87. Through its contracts and technological barriers, Google has obtained and maintains a durable monopoly in the U.S. markets for Android OS appsapp distribution and in-app payment processing. That monopoly power is demonstrated by Google's overwhelming market share, the existence of high barriers to entry and expansion, and Google's ability to extract supracompetitive service fees (of generally 30%) from app developers for all transactions. Apple's App Store is not in

the relevant product ~~market~~markets because apps distributed on it work only on Apple's iOS devices. Apple's app store thus does not directly compete with Google Play and does not discipline Google's monopoly power in the alleged markets.

~~85.~~88.   While Google resists publicly disclosing its share of the ~~U.S.~~ market for Android OS app distribution—going so far as to tell its employees not to "define markets or estimate market shares"[~~67~~65]—its share of that market can be inferred from the number of devices sold with Google Play Store preinstalled as well as the number of apps downloaded from Google Play Store. Not surprisingly, the European Commission found that Google Play Store is preinstalled by OEMs[~~68~~66] on nearly all— more than 90%—of Android mobile devices sold outside of China. No other Android app store comes close to that number of preinstalled users.[~~69~~67] Samsung's "Galaxy" app store, which is a distant second to Google Play, is the only app store that comes preinstalled on more than 10% of smart mobile devices outside of China, according to the European Commission.

~~86.~~89.   The numbers underscore Google Play Store's dominance on OEM devices. In an August 2019 presentation, for instance, Google estimated that Samsung made "~$0.1B" in revenue on its Galaxy Store, while Google had made "~4B" in sales through Google Play Store on Samsung phones. These sales data indicate that Google Play Store had a 97.6% share of Android app distribution even on Samsung phones. Elsewhere, Google has estimated that users spend only 3% of the time on the Samsung Galaxy Store that they spend on the Play Store, and that the Galaxy Store does not cannibalize the Play Store's revenue.

[~~67~~65]   Five Rules of Thumb for Written Communications, The Markup, https://www.documentcloud.org/documents/7016657-Five-Rules-of-Thumb-for-Written-Communications.html (last accessed Jul. 20, 2021); To Head Off Regulators, Google Makes Certain Words Taboo, The Markup, Aug. 7, 2020, Adrianne Jeffries, https://themarkup.org/google-the-giant/2020/08/07/google-documents-show-taboo-words-antitrust (last accessed Jul. 20, 2021); *see also* Google Employees Are Free to Speak Up. Except on Antitrust, The New York Times, Oct. 13, 2020, Daisuke Wakabayashi, https://www.nytimes.com/2020/10/13/technology/google-employees-antitrust.html.

[~~68~~66]   *See, e.g.*, https://support.google.com/googleplay/answer/1727131?hl=en (Google Play Help screen, providing 852-page list of supported devices, including devices manufactured by Samsung, HTC, LG, and Motorola, among many others) (last accessed Aug. 15, 2020).

[~~69~~67]   According to a Google August 23, 2017 document, "Play is the world's largest app platform, with nearly 1.5 billion active users and a large, growing buyer base."

1   87.90. Google Play's market share is also demonstrated by the number of apps downloaded

2   from the store, 108.5 billion in 2020, and by the sheer number of apps available. [7068] Simply put, no

3   other app store can reach as many Android users as Google Play Store. This is by design. As a result

4   of, among other things, Google requiring OEMs to preinstall Google Play, more than 90% of apps on

5   Android devices have been downloaded via Google Play Store. In October 2018, according to the

6   Netherlands Authority for Consumers & Markets, Google Play offered 3.3 million apps, compared to

7   about 700,000 offered by Aptoide, which is the second largest Android app store behind only Google

8   Play. As Amazon said in the Android case before the European Commission, "it has become

9   increasingly difficult over time to obtain and retain a competitive selection of apps because, as the Play

10 Store continues to grow by virtue of being preinstalled on all licensed Android devices, more and more

11 app developers have focused their development efforts on developing apps that use [Google Play

12 Services]."[7169]

13   88.91. Because of their small shares of the user base, other existing Android app stores cannot

14 discipline Google's exercise of monopoly power in the Android app-distribution market or in-app

15 product distribution markets. Indeed, Google itself has recognized its advantage, boasting in a 2015

16 presentation that Amazon and Samsung's stores (among others) had so far failed because they faced a

17 "chicken-and-egg problem":

18

19

20

21

22

23

24

25   [7068] *Annual number of app downloads from the Google Play Store worldwide from 2016 to 2020*,
     Statista, https://www.statista.com/statistics/734332/google-play-app-installs-per-year/ (last visited
26 July 20, 2021).

27   [7169]*Google Android*, Case AT.40099, Council Regulation (EC) 1/2003, July 18, 2018,
     https://ec.europa.eu/competition/antitrust/cases/dec_docs/40099/40099_9993_3.pdf (last accessed
28 July 20, 2021).
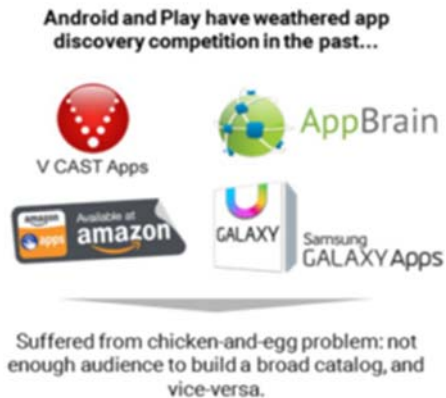
89.92. A 2017 Google presentation on Amazon's App Store acknowledges the same dynamic: "If we were honest we would admit that most users and developers aren't consciously 'choosing' they are going with the default. If they really had to choose, how would they do that and would they choose us?"

90.93. The most dramatic proof of Google's monopoly power is its ability to impose on developers a supracompetitive service fee. As David Heinemeir Hansson, CTO and Cofounder of Basecamp, a small internet software company, testified recently before Congress, businesses should not be required to "hand over 30% of their revenue for the privilege" of selling software through Google Play Store; "[m]ost mobsters would not be so brazen as to ask for such an exorbitant cut."[7270] Hansson contrasted Google's cut to the fees his company pays to transact in the credit card processing market. "[W]e basically pay around 2% … and there are countless competitors constantly trying to

---

[7270] Written Testimony of David Heinemeier Hansson Before the Committee on the Judiciary, Subcommittee on Antitrust, Commercial, and Administrative Law U.S. House of Rep., at 33, Jan 17, 2020, available at https://www.govinfo.gov/content/pkg/CHRG-116hhrg40788/pdf/CHRG-116hhrg40788.pdf (last accessed July 20, 2021).

win our business by offering lower rates. … Mobile application stores are not a competitive market, and the rates show."[73][71]

91.94.   In the absence of Google's entrenched monopoly, rivals could establish app stores that would compete, among other dimensions, on price. The CEO of Epic Games, for example, has suggested that they could run a store with as little as an 8% cut while remaining profitable.[74]

92.95.   A limited number of OEM app stores are present on Android smartphones running Google Mobile Services—including the Samsung Galaxy store. But those stores are OEM-specific— e.g., the Galaxy store is on Samsung devices only—and they do not competitively constrain Google's exercise of monopoly power, i.e., the power to profitably charge prices above the competitive level. Not only are these stores, at most, available only a given OEM's smartphones, but they are disadvantaged by the premium placement that they are contractually required to provide to the Google Play Store (and other Google apps).

93.96.   In addition, as to the Galaxy Store, discovery has revealed that Google has been sharing substantial revenue with Samsung—billions of dollars—including sharing, until recently, revenue generated through Google's default home screen placement on the Google Play Store. Samsung was thus rewarded for providing Google Play Store default premium placement and disincentivized from competing with Google Play Store or investing in their own app stores, which represents only a miniscule share of app downloads and revenue on Android devices.

94.97.   Discovery also shows that Google seeks to gobble up even the tiny share of app downloads and sales on competing OEM-run app stores, particularly when it identifies emerging threats to its most lucrative lines of business. For example, after Epic sought to work with Samsung directly, Google offered to pay Samsung for "Play exclusivity," to make the Play Store the only app

---

[73][71] *Id.*

[74] https://www.pcgamesn.com/steam-revenue-cut-tim-sweeney (last accessed July 21, 2021).

store on Samsung devices, or alternately offered to provide "back end" functionality for the Samsung Galaxy Store if Samsung (a direct competitor) agreed to functionally exit the app-store market.[7572]

95.98.   Thus, even though Samsung and other existing OEM stores have not constrained its monopoly power, Google still pushes to buy them out of the market.

96.99.   Notably, on personal computers, application distribution is competitive. Consumers download applications from a variety of sources, including the application developer's website or stores on websites such as Amazon, Apple, Microsoft, Google, or Steam. As a result, commissions are often lower, and there is meaningful price and service competition among major distribution channels. For example, Steam charges lower commission rates for higher revenue apps,[7673] Microsoft charges lower commission rates for non-game apps (15%) and (as of August 1, 2021) game apps (12%),[7774] and Epic charges 12% for transactions on the Epic Games Store.[7875]

[7572] Specifically, Google proposed as part of this deal (codenamed "Project Banyan," and later "Project Agave") that, while Samsung would be allowed to maintain its Galaxy Store storefront, Google would host almost all app files, perform downloads, and process transactions—in effect rendering the Galaxy Store a Play-run Potemkin village.

[7673] Since October 1, 2018, Steam has charged a 30% commission for each game's first $10M in revenue, a 25% commission for each game's next $40M in revenue, and a 20% commission for each game's remaining revenue. Steam Team, *New Revenue Share Tiers and other updates to the Steam Distribution Agreement* (published November 30, 2018, steamcommunity.com/groups/steamworks/announcements/detail/1697191267930157838) ("Starting from October 1, 2018,. . . . when a game makes over $10 million on Steam, the revenue share for that application will adjust to 75%/25% on earnings beyond $10M. At $50 million, the revenue share will adjust to 80%/20% on earnings beyond $50M. Our hope is this change will reward the positive network effects generated by developers of big games, further aligning their interests with Steam and the community.")

[7774] On its PC store, Microsoft currently charges a 15% commission for non-game Windows 10 apps and a 3012% commission for Windows 10 game apps. However, Microsoft announced in April 2021 that it would reduce its commission for Windows 10 game apps to 12% beginning on August 1, 2021. See Tom Warren, *Microsoft Shakes Up PC Gaming by Reducing Windows Store Cut to Just 12 Percent* (published April 29, 2021, https://www.theverge.com/2021/4/29/22409285/microsoft-store-cut-windows-pc-games-12-percent ("The software giant is reducing its cut from 30 percent to just 12 percent from August 1st.") Furthermore, in June 2021, Microsoft announced that developers of non-game apps will be allowed to keep 100% of their Microsoft Store sales if they use their own (or a third party's) payment system. *See* Sean Hollister, *Microsoft reveals the new Microsoft Store for Windows 11, and it has Android apps, too*, The Verge (June 24, 2021), https://www.theverge.com/2021/6/24/22546635/microsoft-windows-11-new-app-store.

[7875] FAC, Epic Games, https://www.epicgames.com/store/en-US/about (last accessed Jul 20, 2021).

There are high barriers to entry in the Android OS app distribution market.

97.100.   There are significant barriers to entry and expansion in the market for Android OS app distribution. A potential market entrant must: (1) build and maintain the app store client, (2) program and maintain the requisite software and algorithms going forward, (3) advertise the client and the steps needed to install it, (4) keep the marketplace safe, and (5) process payments at a high volume. The cost of all this, according to Sony, is "prohibitive"—particularly given the established position of the Google Play. Indeed, Amazon's app store has barely made a dent in Google's market share, despite Amazon's dedication of hundreds of employees and tens of millions of dollars spent annually over several years to develop and commercialize the store.

98.101.   The European Commission also has concluded that there are high barriers to entering the market for Android OS app distribution.[79][76] The same factors it cited as high barriers to entry in "the worldwide market (excluding China) for licensable smart operating system," where Google's Android OS was estimated in 2018 to have "a market share of more than 95%," apply as well with respect to entry into the U.S. market for Android OS app distribution:

> There are high barriers to entry in part due to network effects: the more users use a smart mobile operating system, the more developers write apps for that system – which in turn attracts more users. Furthermore, significant resources are required to develop a successful licensable smart mobile operating system.[80][77]

99.102.   Other significant barriers to entry and expansion have been erected by Google, which has excluded competition through its restrictive contracts with OEMs and developers, and (addressed below) through technological impediments and its security warnings and threats to end users.

---

[79][76] *See* "Antitrust: Commission fines Google €4.34 billion for illegal practices regarding Android mobile devices to strengthen dominance of Google's search engine," available at: http://europa.eu/rapid/press-release_IP-18-4581_en.htm. (*Id.* ("Google is dominant in the worldwide market (excluding China) for app stores for the Android mobile operating system. Google's app store, the Play Store, accounts for more than 90% of apps downloaded on Android devices. This market is also characterized by high barriers to entry. . . .").) Further, while Plaintiffs' complaint is not based on Google search dominance, nonetheless, Google search is germane because Google Play is bundled with Google search products, which has aided in achieving Google Play's monopoly status in the U.S.

[80][77] *Id.*

1 100.103.   Alternatively, Google is an attempted monopolist in the U.S. market for

2 Android OS app distribution, and in the market for app in-app distribution services and payment

3 processing for U.S. Android app developers.

4 **E.   Apple Does Not Constrain Google's Monopoly Power.**

5 101.104.   Google's monopoly power is not restrained by Apple's App Store because it

6 does not directly compete with Google Play. Apple's iOS apps do not work on Android operated

7 devices and Android's apps do not work on (and cannot be downloaded onto) Apple devices.

8 Moreover, Apple has not developed or licensed an app store for Android, and it does not license its

9 operating system. Thus, Android users cannot purchase apps from Apple's App Store without

10 switching to an Apple iOS iPhone or iPad.

11 102.105.   The switching costs between Android and iOS are also high.[81][78]These costs

12 include (1) the relatively high prices of smartphones and tablets; (2) the learning curve for each

13 operating system; and (3) the fact that apps and in-app purchases are not transferrable between

14 operating systems; (4) the potential loss of access to data; and (5) the costs of switching away from

15 another device using the same operating system. And because so few people own both Android and

16 iOS devices, there is almost virtually no demand shifting between the Play Store and the Apple App

17 Store.

18 103.106.   The European Commission agrees that the Apple App Store does not constrain

19 Google's monopoly power:

20   As a licensable operating system, Android is different from operating
           systems exclusively used by vertically integrated developers (like Apple
21   iOS or Blackberry). Those are not part of the same market because they
           are not available for license by third party device manufacturers.
22

23   Nevertheless, the Commission investigated to what extent competition
           for end users (downstream), in particular between Apple and Android
24

25 ⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯

25   [81][78] *See* House Report at 102 ("Although both Google Android and Apple iOS both have dominant
    positions in the mobile OS market, high switching costs and a lack of on-device competition mean that
26 neither firm's market power is disciplined by the presence of the other."); *see also id.*, at 102-103
    ("There are significant barriers to switching between the dominant mobile operating systems. As a
27 general matter, consumers rarely switch mobile operating systems. SellCell's 2019 survey found that
    more than 90% of users with iPhones tend to stick with Apple when they replace their current device.")
28 (citations omitted).

devices, could indirectly constrain Google's market power for the licensing of Android to device manufacturers (upstream). The Commission found that this competition does not sufficiently constrain Google upstream for a number of reasons, including:

> end user purchasing decisions are influenced by a variety of factors (such as hardware features or device brand), which are independent from the mobile operating system;

> Apple devices are typically priced higher than Android devices and may therefore not be accessible to a large part of the Android device user base;

> Android device users face switching costs when switching to Apple devices, such as losing their apps, data and contacts, and having to learn how to use a new operating system; and

> even if end users were to switch from Android to Apple devices, this would have limited impact on Google's core business. That's because Google Search is set as the default search engine on Apple devices and Apple users are therefore likely to continue using Google Search for their queries.[79]

104.107.   Regarding app stores specifically, the European Commission found that:

> Google is dominant in the worldwide market (excluding China) for app stores for the Android mobile operating system. Google's app store, the Play Store, accounts for more than 90% of apps downloaded on Android devices. This market is also characterised by high barriers to entry. *For similar reasons to those already listed above, Google's app store dominance is not constrained by Apple's App Store, which is only available on iOS devices.*[80]

F.   Google Engages in Unlawful Behavior in Order to Restrain Trade and to Maintain and Grow Its Monopoly.

105.108.   Having obtained monopoly power in the market for Android OS apps and in-app payment processing, Google has constructed a bulwark of contractual restrictions and technical barriers to protect that monopoly status, ensuring that almost all (approximately 90% of) apps and in-app digital content are purchased through Google Play Store and Google Play Billing. These carefully

---

[79] *See* "Antitrust: Commission fines Google €4.34 billion for illegal practices regarding Android mobile devices to strengthen dominance of Google's search engine," available at: http://europa.eu/rapid/press-release_IP-18-4581_en.htm. (last accessed Aug. 15, 2020).

[80] *Id*. (emphasis added).

1 constructed restrictions function as a moat around Google Play Store to protect it from market

2 competition.

3   **1.**   **Google enters anticompetitive contracts with OEMs.**

4   ~~106.~~109.   Google's Play Store dominance begins with users' eyeballs and default habits.

5 As addressed above, Google uses its MADA agreements to secure default premium placement for

6 Google Play Store on the home screen of Android OS devices.[~~84~~81]

7   ~~107.~~110.   Making the Google Play Store the default app store on Android devices gives a

8 significant advantage to Google because users rarely change their default settings. In 2017, in a

9 presentation on Amazon's app store, Google described the power of the Play Store's default placement

10 on the home screen: "If we were honest we would admit most users and developers aren't consciously

11 'choosing' they are going with the default. If they really had to choose how would they do that and

12 would they choose us?"

13   ~~108.~~111.   And because Google's MADA agreements also require that OEMs (1) preinstall

14 a suite of Google proprietary apps; (2) prevent consumers from deleting or removing many of these

15 Google apps; and (3) provide such apps preferential placement on the device's home screen, Google

16 effectively crowds out competing apps and app stores. Indeed, in 2009, Google required preinstallation

17 of as many as a dozen Google apps. By 2013, Google doubled the number. Now, Google requires

18 OEMs to preinstall up to thirty Google apps in order to get a license for even one Google app.

19   ~~109.~~112.   Moreover, OEMs must agree under the MADA and related Anti-Forking

20 Agreements that their devices will pass the Android Compatibility Test, which Google administers and

21 controls in its sole discretion.[~~85~~82] This further reinforces Google's restraint on the production of devices

22

23   [~~84~~81] The home screen appears by default when the device is active (i.e., not in "sleep mode") but
no app is open. "By default, your main Home screen shows the date, weather, and a few apps," as well

24 as a large Google Search "widget." *See* Change what's on your Home screen on Android, GOOGLE,
https://support.google.com/android/answer/9440648?hl=en.

25   [~~85~~82] *See* **Ex. A** hereto (MADA between Google and Samsung), ¶¶ 2.1 ("Devices may only be
distributed if all Google Applications (excluding any Optional Google Applications) authorized for

26 distribution in the applicable Territory are pre-installed on the device, unless otherwise approved by
Google in writing."), 2.7 ("The license to distribute Google Applications in Section 2.1 is contingent

27 upon the Device becoming an Android Compatible Device."), 3.4 (providing that "Google Phone-top
Search must be set as *the default search provider for all search access points on the Device* providing

28

~~FIRST~~SECOND AMENDED CONSOLIDATED   - 37 -
CLASS ACTION COMPLAINT   Case No.: 3:20-cv-05792-JD
~~010803-11/1577289 V1~~010803-11/1709085 V1

1 using Android forks as their operating systems,[8683] which in turn restricts avenues for distribution of

2 competing app stores.

3 ~~110.~~113.   In addition to its MADA agreements, in 2019, Google began offering OEMs the

4 chance to participate in a "Premier Device Program" through a new and more restrictive type of

5 revenue-sharing agreement. Under that program, OEMs get to share in Google's monopoly profits—

6 including 4% of Google's Search revenues earned through covered devices (in addition to any Search

7 revenues granted under earlier agreements), and for some OEMs like LG and Motorola, between 3%

8 and 6% of Google Play Store "spend" on "Premier Tier"-enrolled devices. But this revenue sharing is

9 conditioned on OEMs' agreement (1) not to preinstall competing app stores on "Premier" devices they

10 sell, and (2) to abide by other restrictive conditions on the types of apps that can be preloaded, including

11 apps with "APK install rights" —that is, apps with the ability to install other apps, like Epic's Fortnite

12 Launcher.

13 ~~111.~~114.   Google entered these agreements after recognizing the competitive threat to its

14 monopoly that Epic and other potential Android app distributors posed, designing the agreements to

15 lock in Google's monopoly power in "high monetizing geo[graphie]s." Google itself recognized that

16 the new Premier agreements result in "Exclusivity" for Google Play on covered devices.[8784]

17

18 for the prime placement of Google Applications" (emphasis added) and also providing for the prime
   placement of "Google Applications"), 3.8(c) ("Company shall configure Network Location Provider

19 to be the default network-based location provider on all Android Compatible Devices."); **Ex. B** hereto
   (MADA between Google and HTC), ¶¶ 2.1 (same as ¶ 2.1 in Google-Samsung agreement), 2.7 (same

20 as ¶ 2.7 in Google-Samsung agreement), 3.4 (same as ¶ 3.4 in Google-Samsung agreement), 3.8(c)
   (same as ¶ 3.8(c) in Google-Samsung agreement).

21 [8683] For example, the House Report notes that "[i]n 2012, Chinese tech giant Alibaba developed a
   mobile OS called Aliyun for the Chinese market. However, Acer, Alibaba's hardware partner, abruptly

22 canceled its collaboration with Alibaba before the launch of Acer's device running the OS." Reports
   indicate that Acer's abrupt cancellation was due to threats from Google. House Report at 106 and

23 n.568.

24 [8784] Although the exact terms of the agreements vary, to take one illustrative example, Google
   executed a "Premier" tier RSA with OEM HMD Global, which sells Nokia-branded mobile devices,

25 effective December 1, 2019 through November 30, 2022. Section 5.2, relating to the configuration of
   Google Play and other Google Apps, requires that HMD Global agree that it "will not . . . include in

26 any manner on a Premier Device . . . any Alternative Service, or any application, bookmark, product,
   service, icon, launcher, Hotword, Gesture, or functionality that has the primary purpose of providing

27 access to any Alternative Service" nor may "introduce, promote, or suggest (including via over-the-air
   prompt) an Alternative Service to an End User". The agreement defines Alternative Service as

28

1   ~~112.~~115.   By May 2020, many of the world's largest and most popular Android OEMs

2   had agreed to Google Play exclusivity for most of their new Android devices. After Google targeted

3   Motorola and LG for extra financial incentives, both OEMs committed nearly all (98% and 95%) of

4   their devices to the Premier program. The Chinese conglomerate BBK—which manufactures and sells

5   a range of Android devices under its Oppo, Vivo and OnePlus brands, among others—designated

6   around 70% of its new devices as "Premier." Other brands participating in the program included

7   Xiaomi (40%); HMD, which manufactures devices with the Nokia Mobile brand (100%); Sony (50%);

8   Sharp (50%); and "Other" (80%). In a presentation prepared by and presented to senior Google Play

9   executives, Google noted that in the short time since the beginning of the Premier program, over 200

10   million new devices were covered. The same presentation shows that Google believed that the new

11   RSAs successfully eliminated a "risk of app developer contagion," which was Google's phrase to

12   describe its concern that a successful launch by Epic would cause major developers to begin

13   distributing outside the Play Store, noting that there was "no risk" under the "Current Premier tier."

14   ~~113.~~116.   Indeed, Epic had reached an agreement with OnePlus (one of the brands owned

15   by BBK) to allow users of OnePlus devices to seamlessly install Fortnite—merely by touching an Epic

16   Games app on their devices and without encountering any obstacles typically imposed by the Android

17   OS on sideloaded apps. Although the original agreement between Epic and OnePlus contemplated

18   making this installation method available worldwide, Google demanded that OnePlus not implement

19   its agreement with Epic except for devices sold in India. As OnePlus informed Epic, Google was

20   "particularly concerned that the Epic Games app would have ability to potentially install and update

21   multiple games with a silent install bypassing the Google Play Store." And any waiver of Google's

22   restriction "would be rejected due to the Epic Games app serving as a potential portfolio of games and

23   game updates." In the end, because of Google's intervention, only OnePlus users in India can install

24   Epic apps seamlessly without using the Google Play Store. No other users can do so.

25

26   including any "Alternative Play Service", defined as "any service that is substantially similar to Google
     Play (as determined by Google in its sole discretion)". Under Section 11.1, entitled "Shared Revenue",
27   Google expressly conditions HMD Global's receipt of "Shared Net Play Transaction Revenue" and
     "Shared Net Ad Revenue" on HMD Global maintaining compliance with the requirements of "Sections
28   3 through 5 (regarding Device requirements)".

114.117.   Another OEM that participates in Google's Premier Device Program is LG, which also told Epic that it had a contract with Google "to block side downloading off Google Play Store this year" but that it could "surely" make Epic apps available to consumers if the Google Play Store were used. Google prevented LG from preinstalling the Epic Games app on LG devices.

115.118.   Google itself recognized that the Premier Device Program had "impact[ed]" "Epic's ability to preload" its apps, substantially foreclosing an alternative method of app distribution on Android: installation by OEMs. Nor is there any question about the anti-competitive thinking driving these restrictions on installation method: as one Google employee wrote in 2020, their purpose was "to prevent more 'Fortnite' cases."

2.   Google designs and implements technical barriers.

116.119.   Google does not stop with contractual restrictions, or with its bar on distributing competing app stores through Google Play. It also designed and implemented a variety of technical barriers (or as Google refers to them internally, "pain points") to keep competing app stores off Android devices. While some technical barriers may, in some instances, have legitimate functions (e.g., protecting user security), Google designs the barriers to ward off competition—an effect that Google is aware of and intentionally seeks to maximize. Indeed, in a recent presentation regarding whether to make sideloading easier on Android 12 (the forthcoming version of Android), a key question was how the change would affect competition. The presentation asks: "Would this change directly compel developers to invest in assets off-Play (e.g., 3P app store, etc.)."

117.120.   A device user seeking to install a third-party app store faces significant technical hurdles. For example, Amazon operates an app store for Android OS apps, but there is no simple or intuitive way for the typical owner of a device using Android OS to download apps from Amazon's app store. Because of Google's anticompetitive practices, an Android user seeking to purchase an app from the Amazon app store must first sideload[8885] the store—which requires locating the store

---

[8885] "Sideloading is the installation of an application on a mobile device without using the device's official application-distribution method."
(https://searchmobilecomputing.techtarget.com/definition/sideloading (last accessed Aug. 15, 2020)).

online,[8986] figuring out and completing the sideloading process, and changing a security setting on the Android device (a practice that Google strongly discourages).[9087]

118.121.   Indeed, as discussed below, documents produced so far in this case confirm that Google employees openly discuss how to leverage Google's technological barriers as pretext to keep entrants like Amazon and Epic from gaining scale.

How Google's Barriers Fit Together.

119.122.   Despite touting that its system allows consumers to directly download applications, Google programmed Android OS so that, as its default setting, it would block users from loading alternative app stores—requiring consumers to navigate through multiple misleading warnings that label even trusted app stores as "unknown sources." Furthermore, Google programmed the Android OS to disadvantage competing app stores, including by denying them "the permissions necessary to be seamless updated in the background" and by blocking access to Google Ad Campaigns that allow direct advertising of sideloaded apps on Android phones. Google has even disabled competing app stores after users have downloaded them. These barriers create "friction" for users who otherwise might use alternative app stores—friction that Google, as its internal documents reveal, knows and intends will effectively block competitive stores (even Amazon's) from reaching users.

120.123.   As its primary technical barrier, Google restricts users from downloading competitive app stores and apps by using: (1) a default setting on the vast majority of Android OS devices that blocks such downloading, and (2) a permission process to bypass those defaults that display misleading warnings (about the competing store or app being an "unknown source") and forces users to agree that they are responsible for any resulting damage to their devices.

Default Prevents Sideloading of Competitive App Stores.

121.124.   As a foundational barrier, Google created a default setting blocking sideloading on Android OS phones. The vast majority of Android OS phones are set to this default, blocking

---

[8986] *See* House Report at 220 ("Rival app stores that are not pre-installed on the device, such as the Amazon Appstore, must be sideloaded.").

[9087] *See id.* ("Although sideloading is technically an option for rival app stores and app developers, market participants explained that Google goes out of its way to make side-loading difficult.")

consumers from downloading alternative stores or apps via sideloading. An internal Google document reflects that, as of 2018, only ~32% of devices worldwide had "unknown sources" enabled (meaning that users had changed the default setting such that these devices can install apps from "unknown sources," as described in more detail below), a number that ~~is likely skewed in part by the~~reflects higher rates of third-party store usage outside of the United States; a separate document, from when Fortnite decided to launch via sideloading, estimates that only 15% of users in the United States had "unknown sources" enabled. Unsurprisingly, this means that very few devices ~~in the U.S.~~ have a third-party store installed: an internal Google document from 2021 states that, in the United States, *only 3% of devices have at least one user side-loaded store.*[91][88]

~~122.~~125.   For example, in some instances, Google presents a user trying to sideload an app with only the option "Cancel" or go to the device "Settings" menu—with no indication that installation is in fact possible through the "Settings" menu:
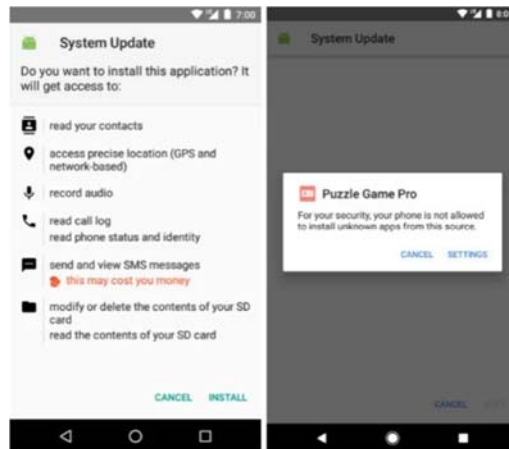
~~123.~~126.   Thus, in addition to all the steps a user must complete to acquire an app outside the Play Store, a user is by default blocked with no indication from Google as to how to avoid that block.

---

[91][88] Similarly, a separate Google document estimates that, between June and September 2016, just 4.4% of Android app downloads were from "off-Play" sources, including preloaded stores like Samsung's.

Friction from multistep permission process and misleading warnings.

124.127.   And even once a consumer decides to try to download a competing store, they must navigate a multi-step process with ominous and misleading "unknown user" warnings.

125.128.   The following is an example of the steps that an Android user must take to download an app through an app store other than the Google Play Store. This example, using Amazon's app store, assumes that the user knows about the alternative store and is sufficiently patient, and tech savvy, to try. First, the user must search Amazon's website to find and obtain a link to Amazon's app store. Then the consumer must do the following:

Step 1
Download Amazon Appstore
1. Use link sent to you in email to navigate to the Amazon Appstore download page
2. Tap on "Get Amazon Appstore" button
3. Follow instructions
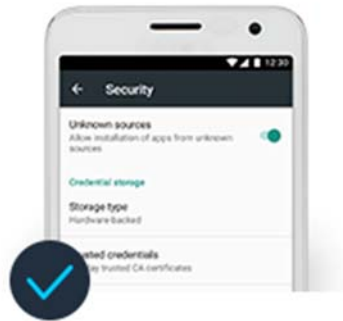
Step 2

Enable Unknown Sources

1. In your phone Settings page, tap on "Security" or "Applications" (varies with device)
2. Enable "Unknown Sources" permission
3. Confirm with "OK"
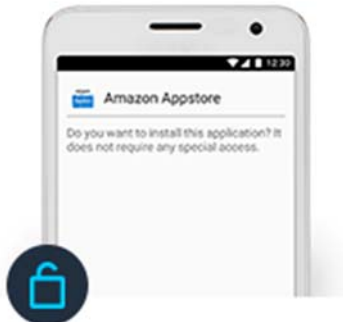
Step 3

Install and Launch Amazon Appstore

1. In your device's "Download" folder, find and tap on the "Amazon_app.apk" file
2. Tap "Install" on the Android Installer screen
3. Launch the Amazon Appstore[9289]

[9289] https://www.amazon.com/gp/feature.html/ref=sxts_snpl_1_1_b122686d-95c7-451e-a41b-8f08ca46cdcb?pf_rd_p=b122686d-95c7-451e-a41b-8f08ca46cdcb&docId=1000626391&pf_rd_r=ZSYBJ5ZEY4SCVPB0YXB5&pd_rd_wg=Ou2nJ&pd_rd_w=l6Ci1&qid=1597568508&pd_rd_r=1f985501-51cf-4e11-8fdc-4d076ac56dbb (last accessed Aug. 15, 2020).

FIRSTSECOND AMENDED CONSOLIDATED   - 44 -
CLASS ACTION COMPLAINT   Case No.: 3:20-cv-05792-JD
010803-11/1577289 V1010803-11/1709085 V1

1   126.129.   Because of Google's refusal to allow competitors to distribute app stores via

2   Google Play Store, and because of Android's security features (controlled by Google), the user had to

3   be willing to turn on the "Unknown Sources" permission referenced in Amazon's Step 2 above. In

4   Android versions released before its Oreo variant, the user would first find a screen looking like this:

5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
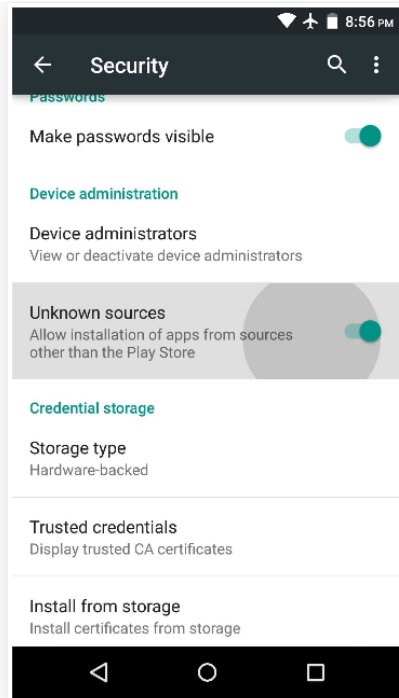
21   127.130.   A user opting to enable "Unknown source" would be greeted with this warning

22   about making "[y]our phone and personal data … more vulnerable to attack":

23
24
25
26
27
28
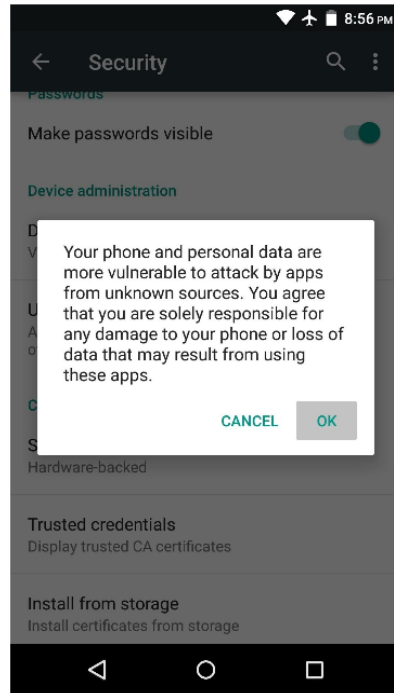
128.131.   Google's exact permission structure has changed over time. For example, on October 26, 2018, Google enabled some users—those using the Oreo version of Android—to authorize downloaddownloads from only one source at a time.⁹³⁹⁰ But some Android OS devices in operation today still likely run pre-Oreo Android versions. Even with the change brought with Oreo, Google knows and intends that (1) most device users will not know how to access stores and apps outside of Google Play and (2), among those users who do, many will be frightened away by having to change a permission switch, given Google's continued warnings in various guises.

---

⁹³⁹⁰ *See* https://www.android.com/versions/oreo-8-0/ ("Hostile downloader apps can't operate without permission; users now permit the installation of APKs per-source.") (last accessed Aug. 15, 2020).) Oreo was not released to the public until August 21, 2017. (https://android-developers. googleblog.com/2017/08/introducing-android-8-oreo.html (last accessed Dec. 10, 2018).) As of October 26, 2018, well over a year later, Oreo's worldwide install base was at a mere 21.5%, not counting China. (https://developer.android.com/about/dashboards/ (last accessed Dec. 10, 2018).)

129.132.   For example, users who wish to sideload might see this warning (after first receiving a pre-warning): "Your phone and personal data are more vulnerable to attack by unknown apps. By installing apps from this source, you agree that you are responsible for any damage to your phone or loss of data that may result from their use."[94][91] Google issues this message no matter how reputable the store operator (or other developer), belying the notion that Google's tactics protect anything other than its monopoly.[95][92]

130.133.   As a factual matter, Google's warnings grossly exaggerate the risk of sideloading. A 2015 presentation to OEMs stated that "potentially harmful applications" constituted a mere fraction of a percentage point of all app installs and that, given the low security risks, "some of the third-party security services that are required on other platforms (such as AV [anti-virus software] and anti-malware) are not necessary on Android." Rather, "the single largest threat to Android security" instead flowed from failures by OEMs to update users' devices with security patches. (And, of course, even Google Play has proven vulnerable to malware that could harm users' devices.[96][93])

131.134.   Nor does data support the claim that third-party stores, particularly those operated by large developers or OEMs, are a significant source of malware. For example, an independent study of Android app stores published in 2017 ranked Aptoide as the safest among the Android app stores analyzed and safer than the Google Play Store itself. Consistent with this, in a 2020 presentation produced in discovery, Google acknowledges that "[a]pp stores generally have relatively low malware install rates," including major OEM stores like Oppo Market (0.02%), Vivo Store (0.05%), Xiaomi Getapps (0.13%) and third-party stores like Amazon (0.7%), Epic Store (0.0%), F-Droid (0.05%), and Care Bazaar (0.15%).

---

[94][91] "Android Q currently disables 'Install unknown apps' permission after every use," available at https://9to5google.com/2019/04/04/android-q-install-unknown-apps/ (last accessed Aug. 17, 2020).

[95][92] And even if users overcome the hurdles imposed by Google and download an app from outside the Play Store, the app may be subject to removal from the user's mobile device by Google's security systems, such as Google Play Secure, and experience problems updating the apps.

[96][93] *See, e.g.*, "Android security: Malicious apps sneak back into Google Play after tweaks," May 9, 2018, available at https://www.zdnet.com/article/android-security-malicious-apps-sneak-back-into-google-play-after-tweaks/ (last accessed Aug. 15, 2020).

132.135.   Google issues its warnings indiscriminately and with the knowledge that it hampers competitors. Like Google Play, the Amazon Appstore is monitored and curated.[9794] Google is well aware of the Amazon App Store and actively monitors it. Yet Google stills labels it an "unknown app," giving users the false impression that even apps Google certainly must have analyzed and determined to be safe nevertheless present an appreciable risk of "damage" to the user's device, including data loss or the exposure of the user's personal information.

133.136.   Google could easily "whitelist" app stores, i.e., disable its ominous warnings for those third-party stores or apps that effectively screen for malware themselves or do not present security risks. But Google steadfastly refuses, recognizing that these concessions would make it easier for rivals to gain scale. For example, in 2017, Amazon requested that Google whitelist its store so that it could "bypass unknown sources," and offered "to share documentation of their security and approval processes of 3P apps to ensure they would be complaint." Google's answer was evidently a hard "no": an internal memo recommends that, "[g]iven our view on view on security overall policy approach, this proposal is a non-starter and not something we would support."

134.137.   Meanwhile, Google employees were contemplating whether to use the same arduous installation process to create *more* rather than *less* trouble for users hoping to install Amazon's store— which was perceived to be a rising threat in some markets. A 2017 presentation analyzing the competitive threat posed by Amazon's app store wondered aloud whether Google should respond in part by "[m]ak[ing] it harder for users to switch stores (E.g., Disable profile porting (via policy), create[ing] more third party friction, e.g., speed bump type hurdles."

135.138.   This strategy is consistent with what one 2019 Google document characterizes internally as "an arms race to prevent sideloading." Indeed, Google implements these hurdles or "speed bumps" with platform dominance in mind and appears to admire them internally; for example, one 2017 strategic assessment of Amazon includes the following slides (under the caption "sideloading

---

[9794] *See, e.g.*, "Amazon Appstore Content Policy," available at https://developer.amazon.com/docs/policy-center/understanding-content-policy.html (last accessed Aug. 15, 2020).

REDACTED VERSION OF DOCUMENT SOUGHT TO BE SEALED

1   Amazon's App Store") modelling the steps necessary to install the "Amazon Underground" store on

2   certain phones in all their baroque detail:
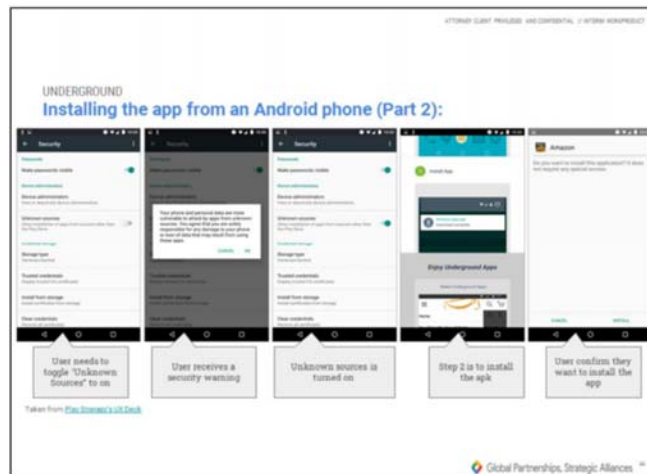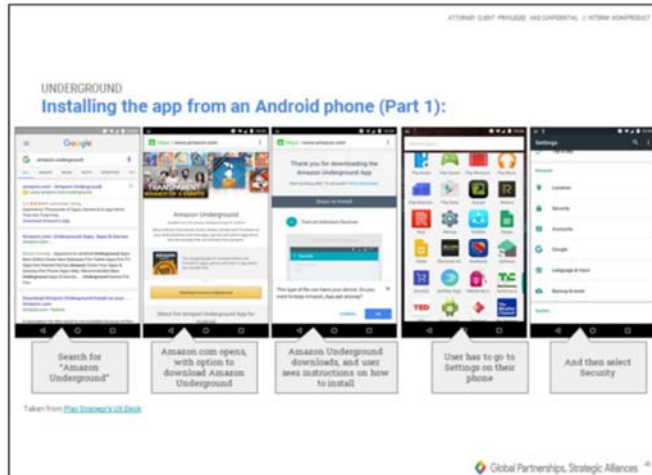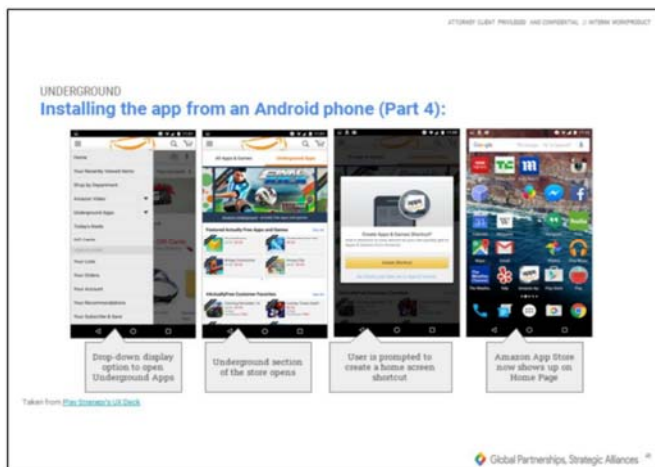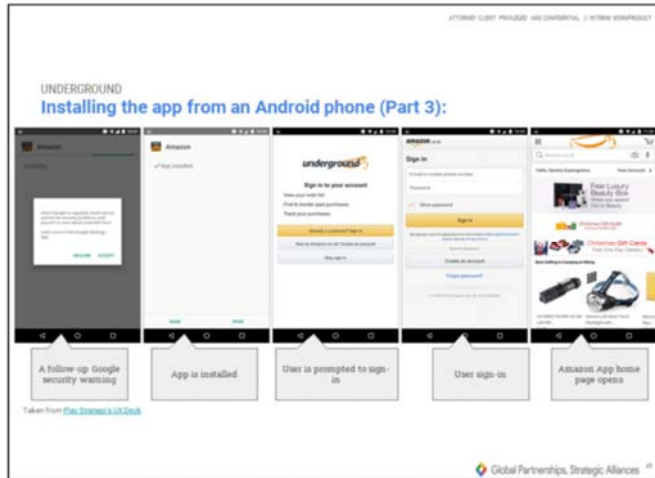
136.139.   Further, Google touts its security measures, including initiatives to safety-check and even quarantine or delete *all* apps on Android OS devices, wherever they are obtained. For

example, in its February 2016 white paper titled, "How we keep harmful apps out of Google Play and

keep your Android device safe,"98 95 Google states:

> Even though we do a lot of work to make Google Play apps safe before they reach you, Google works hard to protect you—no matter where your app comes from. We sandbox each application to constrain bad behavior and if an app wants new permissions, we ask you to confirm at runtime.
>
> In addition to multiple layers of security built into the platform, Android also includes a feature called Verify Apps. Verify Apps continually scans for potentially harmful apps. If an app is discovered later to be potentially harmful, Verify Apps will disable the app and request for you to remove it.
>
> Verify Apps also checks apps you install from outside of Google Play. If we see an app that looks malicious, we warn you before the installation proceeds. Verify Apps is available on every Android device (2.3+) that has Google Play installed.99 96

137.140.   As for its security regime, Google Play Protect, Google assures:

> Google Play Protect helps you keep your device safe and secure.
>
> • It runs a safety check on apps from the Google Play Store before you download them.
>
> • It checks your device for potentially harmful apps from other sources. These harmful apps are sometimes called malware.
>
> • It warns you about any detected potentially harmful apps found, and removes known harmful apps from your device.
>
> • It warns you about detected apps that violate our Unwanted Software Policy by hiding or misrepresenting important information
>
> • It sends you privacy alerts about apps that can get user permissions to access your personal information, violating our Developer Policy.100 97

---

98 95 An archived version of this paper is available at: https://docplayer.net/15116445-How-we-keep-harmful-apps-out-of-google-play-and-keep-your-android-device-safe.html (last accessed July 21, 2021).

99 96 https://docplayer.net/15116445-How-we-keep-harmful-apps-out-of-google-play-and-keep-your-android-device-safe.html at 4 (last accessed Aug. 15, 2020).

100 97 https://support.google.com/android/answer/2812853?p=playprotect_download&hl=en&visit_id=6368017113225579028-4051903200&rd=1 (last accessed Aug. 15, 2020).

138.141.   If these assurances are to be believed, then Google already monitors the security of all apps that would be obtained from any competing app store. If Android security is as robust as Google claims, its warnings against sideloading falsely overstate any potential "harm"—particularly as to widely used apps and app stores, from reputed developers, which Google has analyzed and found to be harmless.

***

139.142.   There is no good reason that a company as technologically sophisticated as Google could not whitelist or otherwise continue to permit unimpeded access to competitors' app stores on Android OS devices, including those run by well-known operators such as Amazon. As noted above, Google itself acknowledges that major third-party and OEM app stores, including Amazon's and Epic's, "generally have relatively low malware install rates" of less than 1%.

3.   Google blocks sideloaded applications and app stores from auto-updating and advertising through Google Ads.

140.143.   Even if a user overcomes Google's obstacles to sideloading a competing app store or app, the user faces continuous additional difficulties in keeping the sideloaded app or app store up to date. This is because Google prevents sideloaded apps and app stores from updating in the background. Instead, users who sideload apps or app stores must manually approve every update via a multistep process. Amazon's website describes that process: "1. Open the app store you used to install the app on your device. 2. Search for the app and open the app's detail page. 3. If an update is available, an Update option displays."[10198] This multi-step process for updates further discourages consumers from using alternatives to the Play Store.[10299]

[10198] "Confirm App is Updated to the Latest Version," https://music.amazon.com/help?nodeId=G202196570 (last accessed July 20, 2021).

[10299] Google last month announced plans to reduce some of its impediments to third-party app stores— after some 10 years—in the forthcoming version of the Android OS, Android 12. Sameer Samat, Listening to Developer Feedback to Improve Google Play, ANDROID DEVELOPERS BLOG (September 28, 2020), https://androiddevelopers.googleblog.com/2020/09/listening-to-developer-feedback-to.html. Specifically, initial Google documentation suggests that it will enable automatic updating of sideloaded app stores under certain conditions. See Mishaal Rahman, Android 12 will finally let alternative app stores update apps without bothering the user, XDA DEVELOPERS (May 19, 2021), https://www.xdadevelopers.com/android-12-alternative-app-stores-update-apps-background/.

141.144.   Similarly, Google blocks alternative (i.e., competing) app distribution channels by preventing app developers from advertising these channels through Google's marketing properties. This requirement unreasonably raises the cost of customer acquisition for competing app distribution channels, as they cannot reach consumers through widely used forms of advertising that are uniquely effective in reaching users who are immediately prepared to acquire an app but instead must find alternative means of advertising to reach users.

142.145.   Google's App Campaigns program allows developers to promote apps through ad placements on key online advertising channels, including Google Search, YouTube, Discover on Google Search, and the Google Display Network. These placements are optimized for the advertising of mobile apps and have proven successful. According to Google, one out of every four users discovers an app through a search engine.[103100] And because Google Search is the overwhelmingly dominant search engine in the United States (and most of the world), it is a vital channel for app developers to reach customers. Ads on Google's YouTube are likewise a key means for developers to reach consumers.

143.146.   Since late 2017, Google has forced all marketers to relinquish their control over app ad targeting to fully automated "black box" machine learning tools, which have been criticized for penalizing smaller budget advertisers. But within the Android ecosystem, the crucial App Campaigns program is limited to app developers who list their app in the Google Play Store. Android app developers must list their apps in the Google Play Store if they want to reach consumers through the vital channel of Google advertising.

144.147.   Denying competing apps and app stores the ability to auto update or advertise on Google properties erects significant additional barriers to entry. The net effect of this conduct is to harm consumers, including by depriving them of choice in how to download their desired apps and app stores.

[103100] https://www.thinkwithgoogle.com/marketing-strategies/app-and-mobile/mobile-app-marketing-insights/ (last accessed July 20, 2021).

4.   Google has, at times, shut down existing consumers' access to competitive stores.

~~145.~~148.   If all else fails—if a consumer learns of another app store, figures out how to acquire the client, educates herself on how to install it, and ignores Google's manipulative security warnings, Google may attempt to shut down the consumer's access.

~~146.~~149.   Not satisfied with denying Aptoide access to the Play Store, Google forced app store operator Aptoide to go to court to seek an antitrust injunction for uninstalling it from Android devices during its Google Play Protect sweeps. And Aptoide won. According to Aptoide's press release:

EU National Court rules against Google in Anti-Trust process

Lisbon, October 19th, 2018

The Portuguese Courts issued today a decision against Google in relation to the injunction filed by Aptoide. It is applicable on 82 countries including UK, Germany, USA, India, among others. Google will have to stop Google Play Protect from removing the competitor Aptoide's app store from users' phone without users' knowledge which has caused losses of over 2.2 million users in the last 60 days.

The acceptance of the injunction is totally aligned with Aptoide's claim for Google to stop hiding the app store in the Android devices and showing warning messages to the users. Aptoide is now working alongside its legal team to next week fill in courts the main action, demanding from Google indemnity for all the damages caused.

This action is part of a complaint against foul play by Google, directed to Android's antivirus software, Google Play Protect. Google's anti-malware system was wrongly identifying Aptoide as a potentially malicious app, hiding and uninstalling it from Android smartphones without user consent.

Aptoide, with over 250 million users, 6 billion downloads and one of the top stores globally, also presented last July, a formal complaint to the European Union's anti-trust departments against Google.

Paulo Trezentos, Aptoide's CEO, says that "For us, this is a decisive victory. Google has been a fierce competitor, abusing his dominant position in Android to eliminate App Store competitors. Innovation is the reason for our 200 million users base. This court's decision is a signal for startups worldwide: if you have the reason on your side don't fear to challenge Google."

According to Carlos Nestal, head of the legal team that worked in the case:

"This case, to our knowledge, is the first of an EU national Court that enforces a clear separation of Android layer and the Services layer. Court is clearly stating that Google's control of the Operating System cannot be used as a competitive advantage in the Services market. We believe this may apply to other situations where Google has competition."[104][101]

147.150.   Reports indicate that Samsung's small app store also was caught up in Google's dubious security net. As androidsage.com reported on June 18, 2018, "[S]ince today, a bunch of Samsung users have reported of Google Play Store flagging the official Samsung Galaxy App Store as potentially dangerous and fake at the extent of even blocking it."[105][102]

5.   Google has substantially foreclosed competition by leveraging agreements with OEMs to foreclose third-party distribution and imposing unreasonable and/or pretextual technological barriers that stymie rivals.

148.151.   By leveraging its agreements with OEMs to foreclose third-party app distribution, thus relegating third-party app distributors to sideloading, and by imposing technical barriers foreclosing effective competition from sideloaded apps and stores, Google has substantially foreclosed competition and built a nearly impenetrable moat around its distribution monopoly.

149.152.   This is exactly what Google intends.

150.153.   Indeed, in a 2020 presentation prepared by and presented to senior Google Play executives, Google boasted that its new RSA agreements (pursuant to which many large OEMs are prohibited from installing *any* store but the Play Store on their "Premier Tier" devices in exchange for Play Revenue) successfully eliminated the "risk of app developer contagion"—that is, the risk of unhappy developers distributing their apps directly to consumers in order to avoid Google's generally 30% cut of sales. Specifically, the document notes that there was "no risk" under the "Current Premier tier," and recognizes that the Premier Device Program had "impact[ed]" "Epic's ability to preload" its apps by negotiating with OEMs.[106][103] Google's new RSAs have thus directly resulted in the substantial

---

[104][101] Press release available at, *inter alia*: https://www.androidpolice.com/2018/10/23/aptoide-gains-injunction-google-latest-antitrust-case-compensation-follow/ (last accessed Aug. 15, 2020).

[105][102] https://www.androidsage.com/2018/06/18/google-play-protect-blocking-galaxy-app-store-how-to-fix/ (last accessed Aug. 15, 2020).

[106][103] As noted above, according to Google documents produced in this case, one purpose of the restraints included in Google's "Premier Tier" device contracts was "to prevent more 'Fortnite' cases."

1 foreclosure of an important, alternative method of app distribution on Android: installation by OEMs

2 of competitor app stores and apps.

3 151.154.   According to Google's internal estimate, as of May 2020, more than 200 million

4 devices were enrolled in Google's new "Premier Tier."

5 152.155.   Similarly, Google is aware that its conduct, and particularly the "friction"

6 sideloading creates for users, has further blocked competitors and potential competitors.

7 153.156.   For instance, in a 2018 "Risk and Leakage Model" prepared by Google's

8 finance team assessing the threat of entry posed by various competitors, Google noted that Amazon

9 had so far struggled to attract users ("blocked on users") and had "limited success to date," but

10 emphasized its "strong capabilities" and "huge established customers base." Notably, the document

11 identifies "friction from sideloading" as a competitive handicap, stating that "device pre-load deals"

12 —that is, specific deals with OEMs to preload Amazon's store—would eliminate this hurdle. With

13 respect to Amazon, the presentation concluded Google's assessment: "lurking risk. Not active lately,

14 but large risk if improve user count."

15 154.157.   Similarly, with respect to Epic Store, Google observed, "Fortnite formidable,

16 but haven't figured out Android," and explained that Epic had not succeeded with its sideloading

17 strategy: "Lots of friction in Fortnite installer installation. Side-load. Very big, very slow."

18 155.158.   Notwithstanding its successful efforts to date, Google recognized that even

19 these nascent competitors, if not blocked, would quickly erode its "Leader advantages." As that same

20 2018 presentation explained, "Other channels may have a difficult time building size at first, but could

21 reach critical mass, reduce Play's leader advantages quickly, and quickly accelerate share shift."

22 156.159.   Google's Finance Director for Platforms and Ecosystems made a presentation

23 to the CFO of Alphabet around the time of Fortnite's launch confirmed Google's fear of a "contagion

24 risk" resulting from more and more app developers forgoing Google Play. Google feared that the

25 "contagion" would spread in this way: first, inspired by Epic's example, "[p]owerful developers" such

26 as "Blizzard, Valve, Sony, Nintendo" would be "able to go on their own," bypassing Google Play by

27 directly distributing their own apps. Then, other "[m]ajor developers," including Electronic Arts, King,

28

Supercell and Ubisoft, would choose to "co-launch off Play," collaborating to forego Google's distribution services as well. And finally, Google even identified a risk that "[a]ll remaining titles [will] co-launch off Play." Google calculated the total at-risk revenue from the threatened loss of market share in Android app distribution to be $3.6 billion.

157.160.   Thus, Google understood that its well-resourced competitors, even if starting out small, would erode Google's monopoly power *if not blocked.*

G.   Google's Unlawful Practices Harm Developers and Competition.

158.161.   Google's practices harm developers and competition by depressing output, stifling innovation, limiting choice, and extracting a supracompetitive tax of up to 30% on every paid app purchased through the Play Store and every purchase of in-app digital content using Google Play Billing, which must be used by developers who sell in-app content on apps distributed through Google Play. But for Google's anti-competitive restrictions, app developers would be able to distribute their apps through alternative methods, including by providing apps directly to consumers, selling apps through independent app stores, creating their own competing app stores, or forming business relationships with OEMs that could preinstall apps.

1.   Google's monopolization of the market stifles innovation.

159.162.   Google's abusive behavior also stifles innovation in the U.S. market for Android OS app distribution.[107104]

160.163.   For example, Amazon devised an alternative model for app distribution through Amazon Underground, which made apps and in-app purchases "actually free" to consumers.[108105]

[107104] *E.g.*, Stephen D. Houck, *Injury to Competition/Consumers in High Tech Cases*, St. Johns L. Rev. Vol. 5, Iss. 4, 593, 598 (2001) ("Any assessment of a restraint's anticompetitive impact, however, will be incomplete if limited to price and output effects. The restraint's impact on consumer choice and innovation must also be considered.").

[108105] *See* Sarah Perez, *Amazon is shutting down its "Underground Actually Free" program that gives away free Android apps*, Techcrunch (Aug. 28, 2017), https://techcrunch.com/2017/04/28/amazon-is-shutting-down-its-underground-actually-free-program-that-gives-away-free-android-apps/ (last accessed July 19, 2021).

Amazon Underground paid developers according to how much time consumers spend interacting with the apps.[109106]

161.164.   Google's anticompetitive behavior is likely one reason why Amazon shuttered Amazon Underground in 2019.[110107] Consistent with Google's own internal assessments, industry analysts perceived Amazon's extreme uphill battle from the outset. One put it this way:

> The first issue is scale. For a system like this you need critical mass and scale in terms of audience and content. Amazon's hands were tied because they weren't able to make Underground readily available on iOS (obviously) or Google devices.
>
> That means they were always going to be limited to those people with Fire devices or who were motivated enough to use more than one app store. . . .[111108]

162.165.   Another analyst put it thus:

> **User acquisition is still the biggest challenge**
>
> Amazon's revamped plans offer app publishers an innovative new model for monetizing certain apps but it may not be enough to address its major challenge: how to persuade Android users to download an alternative store to Google Play. . . .
>
> **Strong app store competition**
>
> The app store competition is extremely strong. The Google Play Store offers a catalogue of than more one million apps (far greater than Amazon) and comes preinstalled on almost all Android smartphones outside China. The Google Play Store is more than sufficient for most users' needs and Google reported more than 1.4bn active devices in September 2015.
>
> Beyond Amazon's own Fire branded smartphone (now discontinued) and tablets, Amazon's store does not come preinstalled on any

---

[109106] *Id.*

[110107] *See, e.g.,* "Why is Amazon shutting down its Underground Initiative?" May 9, 2017, https://www.pocketgamer.biz/mobile-mavens/65694/why-is-amazon-shutting-down-its-underground-initiative/ ("It was part of a long-term strategy with bold ambitions to change the way mobile developers made games, but two years on Amazon has announced that Underground will no longer feature on the Amazon Appstore as of Summer 2017, with the program officially ending in 2019.") (last accessed Aug. 15, 2020).

[111108] *Id.* (quoting Oscar Clark, "Author, Consultant and Independent Developer Rocket Lolly Games").

devices[~~112~~109] and so app publishers correctly focus first on providing content for Google's store rather than Amazon's.

To download the Amazon Underground app, as with its previous Appstore for Android, users have to change their Android permissions to enable non-Google Play downloads which is a step too far for most customers. Amazon needs to have its store pre-installed on Android smartphones if it is to drive increased adoption. Smartphone brands that wish to reduce their dependency on Google should be open to such a relationship.

Other stores are unlikely to follow suit, for now

Amazon's Underground app program is a response challenging market position. As a challenger store with limited market share, Amazon has to innovate to attract users. It also needs to give developers a reason to provide content for its store. Amazon can offset the costs of running the Underground program by tying its users more closely into its ecosystem and driving retail transactions and other content revenues; Amazon Prime Video and its retail store are available alongside mobile apps in Underground. Market leaders Apple and Google do not struggle to attract users or app publishers and the share they take from app transactions have become significant revenue streams, so there is no incentive for them to adopt a similar program.[~~113~~110]

~~163.~~166.   And as Google has done what it can to shut out even a well-resourced potential competitor such as Amazon, Amazon itself continues to soldier on by way of its Amazon Coins program, which allows consumers to buy apps at a discount in the Amazon Appstore.[114] For example, on Aug. 15, 2020, the popular game Minecraft for Android OS was priced at the same nominal sum of

---

[~~112~~109] This was as of October 2015, when the referenced article was published.

[~~113~~110] *See* "Amazon Underground innovates with free apps but faces challenges," Oct. 7, 2015, available at: https://technology.ihs.com/550085/amazon-underground-innovates-with-free-apps-but-faces-challenges (last accessed Aug. 15, 2020).

[114] ~~Amazon's presumptive revenue split in its own Appstore is also 70% developer / 30% store operator, as with Google and Apple. On the other hand, its Amazon Coins program allows consumers to save money on the purchase price of apps everyday while developers continue to earn their 70% developer share. (*See* https://www.amazon.com/dp/B018HB6E80/ref=twister_B009CDKIA8?_encoding=UTF8&pse=1#where (explaining Amazon Coins programs and noting: "The More You Buy, the More You Save. Amazon Coins come in denominations from 300 to 50,000 Amazon Coins. Bigger denominations always have bigger discounts. The savings on an order of 50,000 Coins is always larger than on an order of 300 Coins."); https://www.amazon.com/Amazon-Coins-Apps-Games/b?ie=UTF8&node=13927674011 (more on Coins program) (last accessed Aug. 17, 2020).~~

$6.99 in both Google Play and the Amazon Appstore.[~~115~~111] But by using Amazon Coins, a purchaser could save 20%, bringing her price to approximately $5.59:

> **Minecraft**
> by Mojang
> Rated: Guidance Suggested
> *4.4 out of 5 stars* 83,176 customer ratings
> Price: **$6.99**
> *Save up to 20%* on this app and its in-app items when you purchase **Amazon Coins**. Learn More
> Sold by: Amazon.com Services LLC.[~~116~~112]

~~164.~~167.   Unfortunately, there is no evidence that any of these innovative programs has dented Google's market share to any meaningful degree, which is not surprising considering Google's abusive behavior, including its refusal to permit access via Google Play.

~~165.~~168.   Google's domination of the ~~U.S.~~ app distribution market also stifles innovation in apps—another way it hurts competition generally. Other vibrant app stores would mean more places for featuring apps. With so many apps available on the market, product can and does get lost in Google Play. Developers and competition generally, not to mention individual end-users, would benefit from other venues that would surface good, new products and encourage the development of yet more and better apps—all of which would engender more output in the market at issue here.

2.   Google harms developers by killing competition and diminishing consumer choice.

~~166.~~169.   Google's anticompetitive behavior diminishes the choice offered by endeavors such as Amazon Underground, which lowered prices (even to zero, with its Actually Free component), while also offering developers another way to monetize their apps. If even another corporate giant could not overcome Google's anticompetitive policies, there is little hope for other prospective competitors, unless Google is required to change its anticompetitive contracts and practices.

[~~115~~111]   *Compare*   https://play.google.com/store/apps/details?id=com.mojang.minecraftpe   (last accessed Aug. 15, 2020) *with*, https://www.amazon.com/Mojang-Minecraft/dp/B00992CF6W/ref=sr_1_1?s=mobile-apps&ie=UTF8&qid=1549260798&sr=1-1&keywords=minecraft   (last accessed Aug. 15, 2020).

[~~116~~112]   https://www.amazon.com/Mojang-Minecraft/dp/B00992CF6W/ref=sr_1_2?dchild=1&keywords=minecraft&qid=1597603583&s=mobile-apps&sr=1-2 (last accessed Aug. 16, 2020).

3. Google also harms developers and competition by depressing output.

~~167.~~170.   Google's high service fees prevent app developers from selling more apps and in-app products. As a result of lower sales, developers are deprived of the monetary resources and incentives to invest in app and content development and app distribution. Thus, output is depressed.

~~168.~~171.   Google's $0.99 minimum price for U.S. app sales, and other minimum pricing tiers outside the U.S., also depresses output. Google itself recognizes this by way of contractual terms that permit lower minimum prices in 18 other countries[117]: lower prices move more apps. Again, developers lose volume and real money as a result. There is no good or pro-competitive reason to deny them pricing flexibility for minimum-priced apps.

4. Google harms developers by charging a supracompetitive price for distribution services for Android OS apps and in-app payment processing.

~~169.~~172.   The Google Play Developer Distribution Agreement requires that Google will "display and make [developers'] Products available for viewing, download, and purchase by users" in Google Play in exchange for a "'Service Fee', as set forth [in another document] and as may be revised by Google from time to time with notice to Developer…, will be charged on the sales price and apportioned to the Payment Processer and, if one exists, the Authorized Provider."[~~118~~113]

~~170.~~173.   There is no pro-competitive, or otherwise justified reason for the ~~15% or 30%~~high service ~~fee~~fees that Google charges to U.S. app developers for app and in-app payment processing for most of the class period.[~~119~~114] Google itself has recognized as early as 2009 that "30% is an arbitrary fee > the transaction cost to GOOG (2%)," and today internally estimates its payment processing costs at just 2.6%. On another occasion, when an employee asked about the origin of "30%," another's answer was: "pretty sure Steve Jobs just made it up for iTunes."

---

[117] *See, e.g.*, ¶ 57, *supra.*

[~~118~~113] Google Play Developer Distribution Agreement, https://play.google.com/about/developer-distribution-agreement.html (last accessed ~~Jul~~Dec. ~~20~~3, 2021).

[~~119~~114] *See, e.g.*, "A decade on, Apple and Google's 30% app store cut looks pretty cheesy," Aug. 29, 2018, available at: https://www.theregister.co.uk/2018/08/29/app_store_duopoly_30_per_cent/ ("Apple unveiled the App Store in July 2008, and Android Market the following month, opening with the first Android device that October. Apple set the 30 per cent rate, Google simply followed suit.") (last accessed Aug. 15, 2020); *see also* https://support.google.com/googleplay/android-developer/answer/112622?hl=en (last accessed Aug. 15, 2020).

171.   Nor is there justification for Google's 15% service fee, which Google began to offer developers (for subscriptions) in 2018. In fact, that Google offers the 15% rate for certain transactions underscores the supracompetitive nature of Google's 30% commission rate on others. This unnatural price stability, in the face of improving margins from the accrual of economies of scale and lower costs for various inputs over time, is a sure sign of Google's unlawful monopoly power and abuse of market power. Google immediately imposes this charge on developers by way of its contracts of adhesion.

172.174.   Nor do the circumstances give rise to any pro-competitive justification for Google's contractual terms requiring $0.99 minimum pricing for paid apps and in-app add-ons. This pricing mandate, too, is an abuse of Google's monopoly power.

Supracompetitive Service Fee

173.175.   Google does not have physical inventory (as distinct from a mere bit of digital storage for uploaded content); has a large and growing preinstall base for Google Play Store, which has multiplied not by building more physical stores but simply by replicating an app; and has economies of scale that have grown over time. Yet for most of the relevant period, Google has taken from developers nearly a third of every dollar spent as a fee for all covered Google Play transactions. Given how large the market is, Google could substantially lower its 30% (or 15%) service feefees to a reasonable rate that would cover the cost of operating the Play Store and process transactions.

174.176.   In fact, Google's internal documents reflect that the rate could be set at *just 5%*. But for Google's improperly acquired monopoly in the U.S. market for Android OS app distribution and in-app payment processing, which it maintains through contracts and technological barriers, Google would be forced to compete and lower the exorbitant fees it extracts from developers.

175.177.   Internal Google documents discussing its commission note "discomfort with what we are charging" and state: "[W]e would probably have a stronger backbone if we felt secure about the value exchange."

176.178.   Meanwhile, managers overseeing the Google Play Store also complain internally about their company's "limited investments [in Play] over recent years" and inadequate staffing. One presentation states: "Play was a small team by Google scale at 1134 people in 2017. In

REDACTED VERSION OF DOCUMENT SOUGHT TO BE SEALED

1 2020 the challenges have multiplied 10x and the team is only slightly larger at 1280. Revenue per

2 head has gone from $6.7M to 11.9M – but the way we are running things is getting truly nuts.”

3   179.   That Google offers a 15% service fee on limited transaction categories (mainly after

4 this lawsuit was filed)[115] only underscores the supracompetitive nature of Google’s 30% default

5 commission rate. This unnatural price stability, in the face of improving margins from the accrual of

6 economies of scale and lower costs for various inputs over time, is a sure sign of Google’s unlawful

7 monopoly power and abuse of market power.

8   180.   Absent its anticompetitive conduct, Google would not have been able to impose its

9 default 30% service fee (or any fee greater than 15%) on app distribution and in-app purchases. These

10 fees would have been substantially lower, as is the case on more competitive platforms for app

11 distribution.

12   **PC App Distribution**

13   ~~Epic Games~~

14   ~~177.   Epic~~181.   The PC app distribution market provides a benchmark for what a

15 relatively more competitive ~~rate~~ app store service fee would be. Unlike the Android app distribution

16 market, there is meaningful (although not perfect) competition in the distribution market for PC apps.

17 This has resulted in lower service fees.

18   182.   By way of example, in 2018 Epic launched the Epic Games Store. In stark contrast to

19 Google’s supracompetitive ~~30% (or 15%)~~ service ~~fee~~fees, for its own store, Epic ~~will employ~~charges

20 a *12%* service fee.

21   ~~178.~~183.   This is plenty to achieve a reasonable profit over time, as explained by Epic’s

22 CEO[~~120~~116]: “‘Fixed costs of developing and supporting the platform become negligible at a large

---

[115] Most notably, in 2018 Google began charging a 15% service fee on subscriptions recurring more than one year. In 2021, after this lawsuit was filed and in the face of increasing regulatory scrutiny, Google adopted a 15% tier for developer’s first $1 million in annual revenues, and for all subscriptions. While Google’s 15% service fees may themselves be supracompetitive, Plaintiffs intend to seek damages only for transactions subject to Google service fees exceeding 15%.

[~~120~~116] “New Epic Games Store takes on Steam with just 12% revenue share – Tim Sweeney answers our questions,” *MCV,* https://www.mcvuk.com/business/new-epic-games-store-takes-on-steam-with-just-12-revenue-share-tim-sweeney-answers-our-questions (dated Dec. 4, 2018) (last accessed Aug. 15, 2020).

scale. In our analysis, stores charging 30 per cent are marking up their costs by 300 to 400 per cent'…'But with developers receiving 88 per cent of revenue and Epic receiving 12 per cent, this store will still be a profitable business for us.'"[121][117]

179.   That a newcomer like Epic can run a store profitably with a 12% fee demonstrates how supracompetitive Google's 30% (or 15%) service fee truly is. 184. Given Google's experience, huge preinstallation base for Google Play, and its other economies of scale, it is likely that Google could earn a healthy profit by charging even less than 12% per covered transaction.

180.185.   Notably, Epic's CEO indicates the rates are "around 2.5 percent to 3.5 percent . . . for major payment methods."[122][118] Yet for most of the relevant period, Google charged 30% as its fee for in-app purchases (with some subscription rates at 15%, as referenced herein), and nearly all developers who have sold digital in-app products have paid that 30% fee. And this matters deeply to Android developers. The ability for consumers to pay in-app is critical to app developers, since consumers might forego purchasing in-app digital products if they cannot readily make the purchase with the developer's app.[123][119]

181.186.   Epic has repeatedly tried to do something about this monopolist-imposed rate, to no avail. In fact, Epic recently tried to offer a lower rate to consumers for virtual currency in its popular Fortnite app for Android, which is distributed via Google Play.[124][120] Epic offered consumers a choice: pay through Google's payment processing system, or pay 20% less through Epic's.[125][121] Within hours, Google, in an exercise of its enormous market power, responded by kicking Fortnite out of Google Play.[126][122]

---

[121][117] *Id.*

[122][118] These figures are consistent with Google's own internal estimates; as noted above, a 2021 presentation estimates Google's payment processing costs at just 2.6%.

[123][119] Complaint for Injunctive Relief, *Epic Games, Inc. v. Google, et al.*, No. 20-cv-05671 (N.D. Cal.), filed Aug. 13, 2020, ECF No. 1, ¶ 134.

[124][120] *Id.* ¶ 28.

[125][121] *Id.*

[126][122] *Id.* ¶ 29.

187.   Microsoft offers another leading store for PC apps. In 2019, after Epic entered the market, Microsoft lowered its service fees from 30% to tiers of 15% and 5% for non-games.[123] Then in April 2021, Microsoft announced that (effective August 1, 2021) it would reduce its service fee on games from 30% to 12%.[124] In sum, Microsoft charges service fees in the range of 5% to 15%, just a fraction of the supracompetitive service fees Google imposes on Android developers.

Chrome Web Store

182.188.   Another comparator comes from Google itself. Google has for years operated the Chrome Web Store, whereby it sells certain apps for use on personal computers.[127][125] Google's service fee for purchases of paid apps or in-app products is only 5%,[128][126] a fraction of the 30% default rate that Google Play has extracted from app developers for most of the relevant period. There is no indication that Google is losing money by way of service fees set at 5%. What is clear is that, unlike Google Play, the Chrome Web Store faced competition from distribution channels.

183.189.   Tellingly, however, when App Runtime for Chrome ("ARC") apps are concerned, the fee goes up to 30% for in-app (and one-time[129]) payments. ARC is a project Google introduced in 2014 to bring Android apps to devices running Google's Chrome OS.[130][127] According to Google:

> **Note:** In-app payments for ARC apps are subject to a 30% transaction fee. For example, if you charge $1.99 for an item offered in an ARC app, you'll receive $1.39. This is to ensure a consistent pricing structure with in-app payments made in apps available on Google Play. ARC does not

---

[123] *See* https://9to5mac.com/2019/03/06/microsoft-store-revenue-share/ (last accessed Dec. 1, 2021).

[124] *See* https://www.theverge.com/2021/4/29/22409285/microsoft-store-cut-windows-pc-games-12-percent (last accessed Dec. 1, 2021).

[127][125] *See* https://chrome.google.com/webstore/category/extensions (last accessed Aug. 15, 2020).

[128][126] https://developer.chrome.com/webstore/pricing#seller ("Each time someone buys your app using Chrome Web Store Payments, Google charges you a 5% transaction fee. For example, if you charge $1.99, you'll receive $1.89; if you charge $9.99, you'll receive $9.49.") (last accessed Aug. 15, 2020); https://developer.chrome.com/webstore/money (same service fee for in-app payments when using the Chrome Web Store API) (last accessed Aug. 15, 2020).

[129] This is evidently equivalent to charging some amount for the app itself. (*See* n.155, *infra*.)

[130][127] "First set of Android apps coming to a Chromebook near you," Sept. 11, 2014, available at: https://chrome.googleblog.com/2014/09/first-set-of-android-apps-coming-to.html (last accessed Aug. 15, 2020).

1
2
3

currently support other purchase models including up-front payments, subscriptions and in-app version upgrades; as these types of purchases require provisioning from Google Play which is not currently enabled.[131][128]

4   In other words, Google *could* charge much less, but maintains the generally 30% Google Play fee for

5   internal "consistency" reasons.

6   **A.   Google's Unfair and Deceptive Practices Harm Developers and Competition.**

7   190.   Google has repeatedly engaged in unfair, fraudulent, and/or deceptive business acts

8   and practices that have harmed Plaintiffs and Class Members. Google has made numerous

9   statements about sideloading and the "openness" of the Android system that are false and/or

10 misleading and has unfairly imposed pretextual and unjustified restraints on Developers' ability to

11 communicate with their own app users.

12   **1.   Google's False and Misleading Statements about Sideloading**

13   191.   As discussed above in Section II.F.2, Google has employed technical barriers (which

14 it calls "pain points", "third party friction" and "speed bump type hurdles") and misleading and

15 pretextual warnings to deter users from direct downloading (which it calls "sideloading") app stores

16 or apps from any source other than Google. Despite the fact that some of those "unknown sources"

17 are Google's own business partners and despite recognizing internally that "[a]pp stores generally

18 have relatively low malware install rates," Google indiscriminately warns users about the supposed

19 dangers in dire terms intended to inhibit sideloading and harm competition.

20   **2.   Google's False and Misleading Statements about "Openness"**

21   192.   Despite Google's early promises that it would operate Android Market—the Play

22 Store's predecessor--as an "open system" for the benefit of Google's partners and app developers,

23 and its continued insistence that Android is an "open system", Google has instead used contractual

24 restraints, technological barriers and incentive payments to establish and maintain Google's

25 monopoly in the relevant markets. These knowing misrepresentations have misled users,

26 Developers, OEMs and carriers, and have harmed Developers and competition.

27

28
_____
[131][128] https://developer.chrome.com/webstore/money (last accessed Aug. 15, 2020).

3. Google's Anti-steering Restraints

193.   Google uses its non-negotiable Developer Distribution Agreement, which every Developer must sign in order to distribute apps on Google Play, to prevent Developers from steering their customers to less expensive payment methods. The DDA, together with Google's mandatory Developer Program Policies, requires Developers charging for app downloads or in-app features to use Google Play's billing system, as discussed above in Section. In addition, Google prohibits Developers from "lead[ing] users to a payment method other than Google Play's billing system," including by conveying information about alternative payment methods through the app's listing in Google Play, in-app promotions related to purchasable content, in-app webviews, buttons, links, messaging, advertisements, "other calls to action"; or in-app user interface flows, including account creation or sign-up flows. The DDA further prevents developers from using "information obtained via Google Play to sell or distribute Products outside of Google Play." By prohibiting Developers from communicating with their customers about lower prices Google has further entrenched its monopoly power, enhanced its ability to impose supracompetitive prices, deterred competition and harmed Developers and competition.

H.   Google Monopolizes the Market for Android In-App Payment Processing for Digital Products.

184.194.   In addition to imposing a supracompetitive service fee for Android OS app distribution, Google forces developers to use Google Play Billing for all in-app digital content purchases. In doing so, Google illegally ties in-app payment processing to its distribution services, which allowed it to monopolize the market for Android In-App Payment Processing for Digital Products.

1. The In-App Payment Processing Market is a relevant antitrust market.

185.195.   Payment processing consistconsists of software employed by merchants that performs the necessary steps to verify and accept (or decline) a customer's purchase (or attempted purchase). Payment processing frequently provides additional customer-facing functionalities such as invoicing, payment history, and refund processing.

186.196.   The ability to make quick, seamless purchases within an app itself is critical to the consumer's experience and to the likelihood of purchase. If a consumer were required to purchase in-app digital content only outside the mobile app, that user might simply abandon the purchase or stop interacting with the app altogether. And in-app purchases are critical to developers: the revenue generated from in-app purchases is substantially greater than the revenue generated by pay-to-download apps.

187.197.   Accordingly, developers seek to make their in-app purchase experience as frictionless as possible. Users similarly seek to consummate in-app transactions with the least interruption of their use of the app. A payment processing product that requires the user to exit an app to complete a transaction cannot substitute for one that consummates transactions within the app. The more friction and time a payment requires, the less likely a consumer is to complete the transaction. Developers and consumers alike would not regard a payment processing product that required exiting the app as reasonably interchangeable with payment processors that support in-app payment.

188.198.   In particular, purchasing through a developer's website is not a substitute for in-app payment processing. Not only would this require the user to exit the app, but Google's policies prohibit developers from referring or directing users to websites for payment outside the app environment.132129

189.199.   Moreover, the Android In-App Payment Processing for Digital Products Market is distinct from app distribution, as they are separate products and separate demand exists for each. In other digital ecosystems, payment and distribution services are routinely sold separately. In fact, Google already allows this within the Android mobile ecosystem: developers may use a third-party

---

132129 Play Console Help, Policy Center, https://support.google.com/googleplay/android-developer/answer/9858738 ("Apps other than those described in 2(b) may not lead users to a payment method other than Google Play's billing system").

payment processor like Adyen, PayPal, and Braintree for in-app purchases of physical products and out-of-app services such as those offered through Amazon, Airbnb, and Uber. For in-app purchases of digital content, however, developers must use Google Play Billing as their exclusive payment processor if they wish to distribute their apps through the Google Play Store.

2.   Google has unlawfully tied Google Play Billing to the Google Play Store.

190.200.   As a condition of distribution through the Google Play Store, however, Google requires developers to exclusively use Google Play Billing, Google's in-app payment processor, to process all in-app purchases of digital content.

191.201.   Google requires developers to enter its standardized DDA as a condition of having their apps distributed through the Google Play Store. The DDA unlawfully ties use of Google's in-app payment processor to distribution through the Google Play Store. It also constitutes an unlawful exclusive-dealing arrangement.

192.   Under Section 3.2 of the DDA, developers are required to enter into a separate agreement with Google Payment, a Google subsidiary that is not part of Google's Play Store business unit, to use Google Play Billing for all digital content sold in apps downloaded through the Play Store.

193.   Further, 202.   Section 4.1 of the DDA requires that developers comply with Google's Developer Program Policies. Those policies require that "1. Developers charging for apps and downloads from Google Play must use Google [Play Billing] as the method of payment. 2. Play-distributed apps must use Google [Play Billing] as the method of payment if they require or accept requiring or accepting payment for access to in-app features or services, including any app functionality, digital content or goods (collectively "in-app purchases") must use Google [Play Billing] for those transactions."133130 By contrast, Google's policies require that developers may not use Google

---

133130 Google Play Developer Distribution AgreementPayments Policy, https://playsupport.google.com/about/developer-distribution-agreement.htmlgoogleplay/android-

Play Billing to process payments "for the purchase or rental of physical goods (such as groceries, clothing, housewares, electronics)"; "for the purchase of physical services (such as transportation services, cleaning services, airfare, gym memberships, food delivery, tickets for live events)"; or "a remittance in respect of a credit card bill or utility bill (such as cable and telecommunications services)."[134][131] That is, for physical products and services, Google's policies require a payment processor other than Google Play Billing. Google also permits developers to use services other than Google Play Billing for in-app purchases in South Korea, but only because South Korean regulators passed legislation barring Google from mandating use of its billing service[132]. That legislation does not prevent Google from requiring developers to use Google Play Billing for in-app purchases outside South Korea.

194.203.   Furthermore, for payments subject to Google's requirement to use Google Play Billing, developers are prohibited from "lead[ing] users to a payment method other than Google [Play Billing]."[135][133] This provision bars developers from linking to a website or other service that would process payments more cheaply. The restrictions are comprehensive: "Within an app, developers may not lead users to a payment method other than Google Play's billing system. This includes directly linking to a webpage that could lead to an alternate payment method or using language that encourages a user to purchase the digital item outside of the app."[136][134]

195.204.   Together, these provisions make Google Play Billing the only in-app payment processor that a developer can use for digital content within Android apps. Google's contractual tie of

---

developer/answer/9858738?visit_id=637739808407065031-3430026718&rd=1 Payments Policy, (last accessed JulDec. 201, 2021).

[134][131] *Id.*

[132] *See* https://www.theverge.com/2021/8/31/22643800/apple-google-south-korea-app-store-payment-legislation-passes (last accessed Dec. 1, 2021).

[135][133] *Id.*

[136][134] *Id.*

Google Play Billing to Google Play Services illegally maintains its monopoly in the In-App Payment Processing Market.

3. But for Google's anticompetitive tie, Developers would choose between a variety of reliable and less expensive payment processing options.

~~196.~~205.   If Google did not require developers to use its payment processing to pay for in-app digital content, developers would be free to choose from other reliable payment processors, including PayPal, Braintree, Adyen, WorldPay, and Chase Limited – and could also write their own proprietary payment processing software. These alternatives would enter the In-App Payment Processing for Digital Products market, but for Google's anticompetitive tie. Indeed, Google is now forcing these alternatives out of the market as to digital streaming services, to which Google is currently extending its unlawful tie.

~~197.~~206.   Moreover, tying together these two distinct products—app distribution and in app-payment processing—is not technologically necessary. Third-party payment companies operate safely and effectively in other digital and real-world ecosystems, including, for example, desktop computers and in-app purchases of physical goods. Companies like PayPal and Braintree offer payment processing at a significantly lower price than Google Play Billing. ~~These major payment processors have all aligned on the same fee (to the cent)—2.9% + 30 cents—vastly lower than Google's fully loaded service fee of 30% (or 15%). (As noted above, these percentages are consistent with Google's estimation of~~As noted above, Google estimates its own payment processing costs~~:~~ to be just 2.6%~~).~~ These companies also compete on various dimensions of convenience, speed, security, privacy, and customer service. Google, in contrast, faces no competitive pressure to improve its service or offerings with regard to any of these characteristics.

~~198.~~207.   In fact, developers often choose to use a competitor, rather than Google's offerings, for their payment processing where Google's enforcement practices permit, as with in-app purchases of streaming services. Google's competitors typically offer lower costs, more favorable

1   terms of service, more timely payment to merchants, more payment method options for users (e.g.,

2   Apple Pay, Venmo, bank transfer), and more freedom to set prices than Google offers. These

3   competitors' products could readily be adapted (or continue to be permitted) for use in the In-App

4   Payment Processing Market, i.e., for in-app purchases of digital content. Google's unlawful contracts

5   and policies are the primary reason these competitors have negligible market share. Third-party

6   payment processors stand ready to compete, but Google's illegal tying arrangement prevents them

7   from doing so.

8

9   ~~199.~~208.   Google's anticompetitive tie harms developers and consumers, and reduces

10 overall output by eliminating alternative avenues for in-app payment processing that consumers and

11 developers would otherwise use. Rather than competing on the merits, and creating more efficient,

12 innovative, or less expensive payment processing, Google simply blocks its competitive threats.

13

14   **4.   Google's in-app payment processing tie is not necessary to incentivize its
                        investment in the Play Store or Android.**

15   ~~200.~~209.   Google's tie is not necessary for it to reap significant profits from the Google

16 Play Store and the Android ecosystem, nor for it to continue to invest in the quality of these products.

17 Google's core business model for Android is to collect detailed personal data from Android users and

18 monetize that data through targeted advertising.

19

20   ~~201.~~210.   Google earns substantial revenues from other digital advertising as well: the

21 display advertising it sells on third-party sites; ads within the Google-owned-and-operated apps it

22 mandates that OEMs preinstall; ads within the Play Store; and Google's AdMob, which is among the

23 most popular services developers use to monetize through advertising. The latter two earn Google

24 billions of dollars solely from or via developers, and developers spend billions on Google's other

25 advertising channels to reach consumers. Nor is the tie necessary to prevent "free riding" by developers

26 as to distribution via the Google Play Store. In fact, Google's current model encourages free riding.

27

28 Among the apps that benefit from being on the Google Play Store but do not sell digital goods are

many categories of very valuable commercial apps such as, for example, those used by banks and other financial institutions, brokerages, insurance companies, and real estate services to interact with customers, in addition to those apps that sell billions of dollars of physical goods (e.g., Amazon), services (e.g., Uber), or advertising (e.g., Facebook). Google could elect to charge a reasonable fee for the Google Play Store's distribution services, but it does not. Instead, it reaps a monopolistic windfall from Android in-app payments, to the detriment of developers and consumers alike.

5. **Google's unlawful tie has led to supracompetitive service fees and other anticompetitive effects in the In-App Payment Processing Market.**

202.211. By requiring that apps purchased through the Google Play Store also use Google Play Billing for the purchase of in-app digital content, Google has illegally engaged in tying and exclusive dealing, monopolizing the Android In-App Payment for Digital Product Processing market. Google's anticompetitive conduct has demonstrable anticompetitive effects on the In-App Payment Processing for Digital Products market that harm competition and injure developers.

203.212. Google's supracompetitive commission on in-app purchases raises prices for consumers, reduces profits for developers, and chills the market for app development and digital content development by making digital content less profitable.

204.213. Google could not maintain this extravagant commission in a competitive market free from Google's illegal tying, exclusive dealing, and other anticompetitive conduct. The fee is an order of magnitude higher than fees for platforms in which there is competition for electronic payment processing.

205.214. Without Google's exclusive-dealing mandate, developers would have more options for in-app payment processing; with the potential for higher profits, developers could dedicate more money to research and development, marketing, and creating new apps, further increasing output.

206.215. By requiring that apps purchased through the Play Store use Google Play Billing for the purchase of digital content, developers lose features like the following, which are not offered

by Google Play Billing but are available through developers' own proprietary payment systems or

processors like Adyen and WorldPay:

    a. Key information about failed consumer in-app purchase transactions, such as the specific reason for the failure (e.g., insufficient funds). Google Play Billing indicates only that a problem exists with the transaction without further description.

    b. Features that minimize "involuntary churn," or the inadvertent loss of users through short-term credit card issues such as a credit card expiring or being put on hold.

    c. Data indicating that a given consumer card has been recently used successfully with other merchants. This data can increase a developer's confidence that the consumer is likely to pay.

    d. Free trial services. Some developers want to offer free trial experiences periodically (a feature available through some non-Google payment processors), but Google Play Billing allows only one free trial service per lifetime per product.

    e. Customized cancellation experiences. When a user discontinues in-app subscriptions (for example, after finding a job with a job-seeking app or finding a dating partner with a dating app), developers would like to learn about the user's decision to discontinue and, where appropriate, upsell the user. Google Play Billing does not permit developers flexibility to gather this information or offer additional services.

207.216.   In a competitive market for in-app payment processing, developers could create

their own payment infrastructure, or accept third party payment processing—just as retailers accept

different types of payment including credit, debit, and prepaid cards. Developers could offer payment

systems based on alternative currencies or billing to cell phone carriers. These innovations are

substantially foreclosed by Google's anticompetitive contractual requirements.

208.217.   Indeed, native and third-party payment processing products can be better

tailored to developers' needs. Absent Google's exclusive-dealing requirements, developers could

compete in the In-App Payment Processing Market themselves or partner with third-party payment

processors that charge a fraction of what Google extracts. This would allow developers to offer not

only competitive pricing but also a variety of payment options tailored to their users' needs. For

example, in many countries outside the United States, users can purchase pre-paid "Paysafecards" in

convenience stores that can then be used to purchase in-game content in Fortnite without connecting

FIRSTSECOND AMENDED CONSOLIDATED   - 74 -
CLASS ACTION COMPLAINT   Case No.: 3:20-cv-05792-JD
010803-11/1577289 V1010803-11/1709085 V1

to a credit card or bank account. Developers have the best information on their own business models and are thus best placed to select their own payment processing solutions.

209.218.   Google's anticompetitive conduct harms potential payment processing competitors who would otherwise be able to innovate and offer developers and consumers alternative payment processing tools that provide better functionality, lower prices, and better security, but are barred from entering the In-App Payment Processing for Digital Products market. Because Google prevents them from accessing a large portion of the market, their sales and profits are also lower than they would be but for Google's conduct.

210.219.   Google also harms developers by preventing them from efficiently informing consumers *through their app* of lower-priced payment options for in-app purchases and app subscriptions, forcing developers to incur additional costs to communicate through other means. Developers whose only relationship with their customers is through their app are effectively foreclosed from providing this information. Communication through an app is low-cost and efficient. But Google stops any such communication that threatens its in-app-payment- processing monopoly, thus distorting the competitive process and harming consumers, many of whom are unable to learn about better deals.

211.220.   There are no procompetitive efficiencies from Google's tie of distribution and payment processing that outweigh the harm to consumers, developers, and potentially competitive payment processors. All market participants are harmed by Google's forced use of in-app payments.

212.221.   As with app distribution, Google pretextually defends the tie by citing security concerns, but there are many highly secure and reliable payment processing systems. If Google were truly concerned about security, it would simply require that payment processors use reasonable technical security protocols. In fact, security is equally important to payment systems for both digital and physical content, and yet Google locks in Google Play Billing only for digital content. Google's internal strategy around pricing and policy for in-app payments reveals that its invocation of security

concerns is simply a public-relations strategy—a means of justifying Google's anticompetitive conduct as opposed to a genuine security concern.

213.222.   Google's tie of app distribution through the Google Play Store with developers' exclusive use of Google Play Billing to process in-app purchases of digital content also enables Google to gather information on consumers making in-app purchases, thereby harming consumers who would otherwise have the choice to use payment processors that do not share their information with Google. There are no welfare-enhancing or otherwise legitimate justifications for this tie. Any security or consistency that Google can offer consumers in the payment processing market can still be offered in a competitive market, at a competitive price. Nor does Google need to monetize the Play Store in this manner in order to maintain the Android ecosystem at large.

214.223.   In short, Google has used its monopolistic control over the Android App Distribution Market to force developers to use Google Play Billing as their exclusive in-app payment processor. Google thus deprives developers from choosing between competing in-app payment options, which could result in higher revenues and even more security.

VI.   INTERSTATE TRADE AND COMMERCE

215.224.   The activities of Google as alleged in this complaint were within the flow of, and substantially affected, interstate commerce. Google Play sells distribution and payment-processing services across, and without regard to, state lines.

VII.   RELEVANT MARKETS

A.   First Relevant Product Market

216.225.   The antitrust injuries alleged herein, including harm to developers and competition, have occurred in the U.S. market for distribution of Android OS apps, i.e., for distribution services provided to U.S. Android app developers.[137135] This market is heavily dominated, to the point

---

[137135] *Cf.* "Antitrust: Commission fines Google €4.34 billion for illegal practices regarding Android mobile devices to strengthen dominance of Google's search engine," July 18, 2018, available at:

1   of monopoly power, by Google, including by way of its Google Play Store, thanks to Google's willful

2   and anticompetitive behavior as described in this complaint. As the European Commission has found,

3   Google and Google Play, via various anticompetitive practices, have acquired some 90 percent of the

4   market worldwide in Android app distribution.[138] ~~There is no reason to believe that Google's share is~~

5   ~~less than that in the U.S. Accordingly, Google's share of the relevant market for Android app and in-~~

6   ~~app distribution services is believed, and therefore alleged, to have reached a similar level of~~

7   ~~dominance.[136]~~

8   ~~217.~~226.   Competitors in the relevant market exist, such as Amazon, Aptoide, and

9   Samsung, but they are weak in terms of their own market power. Google has "cut off the air supply"

10   of each such competitor by its unlawful contracts, policies, and actions. None has made a serious dent

11   in Google's market share.

12   ~~218.~~227.   Furthermore, due to the incompatibility of Apple's iOS with Google's Android

13   OS, and the resultant incompatibility of iOS and Android OS apps; due to Google's status as a

14   bottleneck retailer; and due, *inter alia*, to the high switching costs among end users, as well as plaintiffs

15   and putative class members, Apple's App Store and corresponding distribution services for iOS apps

16   offers no competition to, and is not a substitute for, Google's distribution services for Android OS

17   apps. Developers, industry, and governments understand that the Android market alleged herein is a

18   discrete one, which Google monopolizes.

19   ~~219.   For the reasons alleged herein, including the foregoing, the relevant market is a single-~~

20   ~~brand market or, alternatively, a submarket of a larger market that includes, *inter alia*, other mobile~~

21   ~~OS app distribution services.~~

22

23   http://europa.eu/rapid/press-release_IP-18-4581_en.htm ("Google is dominant in the worldwide
24   market (excluding China) for app stores for the Android mobile operating system. Google's app store,
     the Play Store, accounts for more than 90% of apps downloaded on Android devices.").

25   ~~[138] *See* European Commission, *Google Android*, Case AT 40099, Commission Decision of 18~~
26   ~~July 2018, at 92–97, available at https://ec.europa.eu/competition/antitrust/cases/dec_docs/40099/~~
     ~~40099_9993_3.pdf (last accessed Aug. 17, 2020).~~

27   [136] *See* European Commission, *Google Android*, Case AT 40099, Commission Decision of 18
28   July 2018, at 92–97, available at https://ec.europa.eu/competition/antitrust/cases/dec_docs/40099/
     40099_9993_3.pdf (last accessed Aug. 17, 2020).

220.228.   Google's restraints on competition directly impact the U.S. market for Android OS distribution services as alleged herein. Google permits and encourages U.S. app developers to sell their apps via Google Play to non-U.S. nationals, and U.S. developers (including the Plaintiffs) do so. Upon information and belief, these developers' business relationship and dealings are primarily with Google LLC and Google Payment Corp., which are U.S. entities. Therefore, the Foreign Trade Antitrust Improvement Act does not apply. Alternatively, its exceptions apply, including because the conduct alleged has a direct, substantial, and reasonably foreseeable effect on trade or commerce which is not trade or commerce with foreign nations.

221.229.   Google is a direct seller of distribution services to Android developers for the sale of apps in or via the Google Play Store and for add-ons and other products sold in those apps.139137

222.230.   Plaintiffs seek relief on behalf of themselves and other developers. Insofar as Google Play may be or is a two-sided platform, lower prices would not lead to any discernible negative indirect network effects under the circumstances described herein. For example, unlike on credit-card transaction platforms, lower fees or prices would not mean less money available to pay rebates or rewards to consumers. To the contrary, Google does not share its service fees with consumers. Here, Google's restraints do not help to establish or enhance participation *inter se* developers and consumers, nor do they help to prevent erosion in participation. In fact, Google can point to no considerations that countervail the propriety of the monetary and injunctive relief that Plaintiffs seek.

223.   *Alternatively*, the231. The antitrust injuries alleged herein, including harm to developers and competition, have occurred in the U.S. Android app distribution market. This market includes the Play Store, other app stores for Google Android devices, such as Samsung's Galaxy Apps store and the Amazon AppStore, and independent app stores, such as Aptoide .It also includes app stores for non-Google ("forked") Android devices, such as the app store Amazon developed for its own Android OS (Fire OS).

139137 *See, e.g.*, https://play.google.com/store (offering various digital products to consumers for purchase, including apps, at various price points) (last accessed Aug. 15, 2020). The Google Play mobile client is installed on hundreds of millions of Android OS devices, as alleged herein, and similarly offers various products, including apps, for purchase and sale.

224.232.   The relevant market does not include app stores for non-Android smart mobile OSs such as the (now defunct) Windows Mobile Store (compatible only with Microsoft's Windows Mobile OS) or Apple's App Store (compatible only with iOS), because app stores are OS-specific. A consumer who owns an Android smartphone cannot use an app store developed for a non-Android OS, and a device manufacturer that preinstalls an app store on an Android device cannot install an app store that runs on a non-Android OS.

225.233.   Due to the incompatibility of Apple's iOS with Google's Android OS, and the resulting incompatibility of iOS and Android OS apps; due to Google's status as a bottleneck retailer; and due, *inter alia*, to the high switching costs among end users, as well as Plaintiffs and putative class members, Apple's App Store and corresponding distribution services for iOS apps offers no competition to, and are not a substitute for, Google's distribution services for Android OS apps. Developers, industries, and governments understand that the Android market alleged herein is a discrete one, which Google monopolizes.

226.234.   In the alternative, the relevant market is a submarket of a larger market that includes, *inter alia*, Apple's App Store.the market for the distribution of mobile apps to users of all mobile devices, including Android and Apple iOS devices..

B.   Second Relevant Product Market

227.235.   The antitrust injuries alleged herein, including harm to developers and competition, have occurred in the U.S. market for Android in-app payment processing for digital products, i.e., for payment processing provided to U.S. Android app developers for these products.140138 Google has enormous power in this market, thanks to its willful and anticompetitive behavior as described in this complaint. As the European Commission has found, Google and Google Play, via various anticompetitive practices, have acquired some 90 percent of the market worldwide

---

140138 *Cf.* "Antitrust: Commission fines Google €4.34 billion for illegal practices regarding Android mobile devices to strengthen dominance of Google's search engine," July 18, 2018, available at: http://europa.eu/rapid/press-release_IP-18-4581_en.htm ("Google is dominant in the worldwide market (excluding China) for app stores for the Android mobile operating system. Google's app store, the Play Store, accounts for more than 90% of apps downloaded on Android devices.").

1   in Android app distribution.[141][139] And with few exceptions, Google requires the use of Google Play

2   Billing, its in-app payment system for in-app product distributions. There, Google's share of the

3   relevant market for Android in-app payment processing for digital products is believed, and therefore

4   alleged, to have reached monopoly status.

5   228.236.   Competitors and would-be competitors in the relevant market exist, but their

6   share is exceedingly small given Google's insistence that Android app developers use Google Play

7   Billing for digital products sold in apps acquired from Google Play. These competitors, such as PayPal,

8   Stripe, and Square, charge many magnitudes less than Google,[142][140] and they provide better service,

9   including quicker access to funds.[143][141] Google has "cut off the air supply" of each actual and potential

10   competitor in the market for Android in-app payment processing by Google's abusive contracts,

11   policies, and actions. And given the high sales and monetary value of in-app products,[144][142] certainly

12   the effect on commerce in the market for these services is substantial.

13   229.237.   Again, due to Google's exclusionary contracts and policies, there is no

14   substitute for Google's payment processing. Developers, industries, and governments understand that

15   the Android market alleged herein is a discrete one, which Google monopolizes.

16   230.   Based on the reasons alleged herein, including the foregoing, the relevant market is a

17   single-brand market.

18   231.238.   Google's restraints on competition directly impact the U.S. market for Android

19   in-app payment processing as alleged herein. Google permits and encourages U.S. app developers to

20

---

21   [141][139] *See* n.158, *supra*.

22   [142][140] In fact, PayPal has a microtransactions program for sellers whose transactions average less
than $10. Where funds come from a PayPal account in the U.S., PayPal charges a fee of 5.0% of the
23   transaction plus a fixed fee based on currency. *See* "Micropayment Fees,"
https://www.paypal.com/us/webapps/mpp/merchant-fees (last accessed Aug. 17, 2020).

24   [143][141] *Cf.* "Receiving Payout," available at: https://stripe.com/docs/payouts#payoutschedule
(referring to two-business-day and seven-calendar-day payout schedule for U.S. accounts, depending
25   on assessed risk level, for the payment processor Stripe) (last accessed Sept. 27, 2019).

26   [144][142] *See, e.g., Consumer Spending in Mobile Apps Grew 17% in 2019 to Exceed $83 Billion
Globally*, SensorTower (Jan. 6, 2020), https://sensortower.com/blog/app-revenue-and-downloads-
27   2019 ("An estimated $61.7 billion was spent in mobile games across both stores last year, 12.8 percent
more than 2018's total of $54.7 billion. This was 74 percent of all in-app spending for 2019[.]") (last
28   accessed Aug. 17, 2020).

sell their in-app digital content to non-U.S. nationals, and U.S. developers (including Plaintiff Pure Sweat Basketball) do so. Upon information and belief, these developers' business relationship and dealings are primarily with Google LLC and Google Payment Corp., which are U.S. entities. Therefore, the Foreign Trade Antitrust Improvement Act does not apply. Alternatively, its exceptions apply, including because the conduct alleged has a direct, substantial, and reasonably foreseeable effect on trade or commerce which is not trade or commerce with foreign nations.

232.239.   Google is a direct seller of Android in-app payment processing services to Android developers for the sale of apps in or via the Google Play Store and for in-app digital content sold using Google Play Billing.[145143]

233.240.   Plaintiffs seek relief on behalf of themselves and other developers. Insofar as Google Play may be or is a two-sided platform, lower prices would not lead to any discernible negative indirect network effects under the circumstances described herein. For example, unlike on credit-card transaction platforms, lower fees or prices would not mean less money available to pay rebates or rewards to consumers. To the contrary, Google does not share its service fees with consumers. Here, Google's restraints do not help to establish or enhance participation *inter se* developers and consumers, nor do they help to prevent erosion in participation. In fact, Google can point to no considerations that countervail the propriety of the monetary and injunctive relief that Plaintiffs seek.

C.   Geographic Market

241.   The relevant geographic market for both relevant product markets is worldwide (excluding China). Operating systems, apps and app stores are developed and distributed on a global basis, excluding China. China is excluded from the relevant market because legal and regulatory barriers foreclose the operation of the Google Play Store within China.

242.   Alternatively, the United States is a relevant geographic market.

[145143] *See, e.g.*, https://play.google.com/store (offering various digital products to consumers for purchase, including apps, at various price points) (last accessed Aug. 15, 2020). The Google Play mobile client is installed on hundreds of millions of Android OS devices, as alleged herein, and similarly offers various products, including apps, for purchase and sale.

VIII.   CLASS ALLEGATIONS

234.243.   Plaintiffs bring this proposed class action for damages and injunctive relief pursuant to Fed. R. Civ. P. 23(b)(1), (2), and (3).

235.244.   Plaintiffs bring this action on their own behalf and the following nationwide class, on the basis of federal law claims as alleged herein, or California state law claims as alleged herein, or both:

> All U.S. persons or entities that paid Google a "service fee" of greater than 15% on: (a) any paid Android OS app or paid in-app content (including subscriptions) sold in or via the Google Play store, in or via any U.S. or foreign Google Play storefront; or (b) any paid in-app digital content (including subscriptions) sold via Google Play Billing on an Android OS app distributed via the Google Play Store, in or via any U.S. or foreign Google Play storefront.

245.   Excluded from this proposed class are the defendants; defendants' affiliates and subsidiaries; defendants' current or former employees, officers, directors, agents, and representatives; the district judge or magistrate judge to whom this case is assigned, as well as those judges' immediate family members; and all governmental entities.

236.246.   **Numerosity:** The exact number of the members of the proposed class is unknown and is not available to the Plaintiffs at this time, but upon information and belief, the class will consist of many thousands of members such that individual joinder in this case is impracticable.

237.247.   **Commonality:** Numerous questions of law and fact are common to the claims of the Plaintiffs and members of the proposed class. These include, but are not limited to:

a.   Whether Google unlawfully has conditioned the contractual right of any manufacturer of any Android OS mobile telephone or tablet to preinstall desired Google applications such as the YouTube or Google Maps apps on the manufacturer's agreement also to install the Google Play client, with the object of acquiring or maintaining monopoly status in the U.S. market for Android OS app distribution (and correspondingly high market shares in the markets for Android OS distribution services and in-app payment processing);

b.   Whether there is a U.S.an antitrust market (or submarket) for Android OS app distribution services, i.e., for distribution services provided to U.S. Android app developers;

c.   Whether there is a U.S. market for Android in-app payment processing, i.e., for payment processing provided to U.S. Android app developers;

d.   Whether Google has unlawfully monopolized, or attempted to monopolize, the foregoing markets or submarket;

e.   Whether competition in the U.S. market for Android OS distribution services, or payment processing, has been restrained and harmed by Google's monopolization, or attempted monopolization, of such market(s);

f.   Whether Google has imposed contracts on developers that restrain trade as alleged herein;

g.   Whether developers have been harmed, including by way of having paid more for app service or distribution fees, or in-app product payment processing fees, than they would have but for Google's unlawful conduct, as a result of Google's unlawful practices;

h.   Whether Plaintiffs and members of the proposed class are entitled to declaratory or injunctive relief to halt Google's unlawful practices, and to their attorney fees, costs, and expenses;

i.   Whether Plaintiffs and members of the proposed class are entitled to any damages or restitution incidental to the declaratory or injunctive relief they seek, and to their attorney fees, costs, and expenses related to any recovery of such monetary relief; and

j.   Whether Plaintiffs and members of the proposed class are otherwise entitled to any damages or restitution, and to their attorney fees, costs, and expenses related to any recovery of such monetary relief.

238.248.   **Typicality:** Plaintiffs' claims are typical of the claims of the members of the proposed class. The factual and legal bases of Google's liability are the same and resulted in injury to Plaintiffs and all of the other members of the proposed class.

239.249.   **Adequate representation:** Plaintiffs will represent and protect the interests of the proposed class both fairly and adequately. They have retained counsel competent and experienced in complex class-action litigation. Plaintiffs have no interests that are antagonistic to those of the

1 proposed class, and their interests do not conflict with the interests of the proposed class members they

2 seek to represent.

3   240.250.   **Prevention of inconsistent or varying adjudications:** If prosecution of myriad

4 individual actions for the conduct complained of were undertaken, there likely would be inconsistent

5 or varying results. This would have the effect of establishing incompatible standards of conduct for

6 the Defendants. Certification of Plaintiffs' proposed class would prevent these undesirable outcomes.

7   241.251.   **Injunctive and declaratory relief:** By way of its conduct described in this

8 complaint, the Defendants have acted on grounds that apply generally to the proposed class.

9 Accordingly, final injunctive relief or corresponding declaratory relief is appropriate respecting the

10 class as a whole.

11   242.252.   **Predominance and superiority:** This proposed class action is appropriate for

12 certification. Class proceedings on these facts and this law are superior to all other available methods

13 for the fair and efficient adjudication of this controversy, given that joinder of all members is

14 impracticable. Even if members of the proposed class could sustain individual litigation, that course

15 would not be preferable to a class action because individual litigation would increase the delay and

16 expense to the parties due to the complex factual and legal controversies present in this matter. Here,

17 the class action device will present far fewer management difficulties, and it will provide the benefit

18 of a single adjudication, economies of scale, and comprehensive supervision by this Court. Further,

19 uniformity of decisions will be ensured.

20   IX.   APPLICABILITY OF CALIFORNIA LAW

21   243.253.   There is a California law provision incorporated by reference in the Google Play

22 Terms of Service.[146144] Accordingly, Plaintiffs allege that California law applies to the state law claims

23 they assert on their own behalf, and on behalf of the proposed nationwide class.

24

25   [146144] *See* Google Play Terms of Service, available at: https://play.google.com/about/play-
26 terms/index.html, which incorporates the Google Terms of Service, the latter of which is available at:
    https://policies.google.com/terms ("California law will govern all disputes arising out of or relating
27 to these terms, service-specific additional terms, or any related services, regardless of conflict of
    laws rules. These disputes will be resolved exclusively in the federal or state courts of Santa Clara
28 County, California, USA, and you and Google consent to personal jurisdiction in those courts.").

244.254.   Furthermore, upon information and belief, the unlawful conduct alleged in this complaint, including the drafting, dissemination, and consummation of anticompetitive contracts and policies, as well as the levying and collection of Google's supracompetitive 30% (or 15%) service feefees on Google Play purchases, and the enforcement of minimum-price terms, was effected, implemented, adopted, and ratified in the state of California, where Google LLC and Google Payment Corp. maintain their U.S. headquarters. Therefore, a substantial part of the anticompetitive conduct took place in California. For these reasons, too, Plaintiffs allege that they and the proposed nationwide class are entitled to monetary and injunctive relief pursuant to California law.

FIRST CAUSE OF ACTION:
VIOLATION OF THE SHERMAN ACT – MONOPOLIZATION
OF U.S. ANDROID APP DISTRIBUTION MARKET
(15 U.S.C. § 2)

245.255.   Plaintiffs repeat and re-allege every allegation above as if set forth herein in full.

246.256.   Plaintiffs bring this federal law claim on their own behalf and on behalf of each member of the proposed nationwide class described above.

247.257.   Google possesses monopoly power in the U.S. market for distribution of Android OS apps, i.e., for distribution services provided to U.S. Android app developers. Alternatively, Google possesses monopoly power in the U.S.a market for Android app distributionthat includes, *inter alia*, Apple's App Store.

248.258.   For the reasons stated herein, substantial barriers to entry and expansion exist in the relevant market.

249.259.   Google has the power to exclude competition in the relevant market, and it has willfully used that power, including by way of its unlawful practices in restraint of trade as described herein, in order to achieve, maintain, and expand its monopoly power in that market.

250.260.   Furthermore, in an exercise of its monopoly market power, and in order to willfully obtain, maintain, and enhance that power in the Android app distribution market, Google has tied in-app payment processing via its Google Pay Billing product to Android OS app distribution via Google Play. Google has done so via policy, practice, and contract as alleged herein. In-app payments to U.S. developers run to millions of dollars each year, on millions of transactions. Therefore, the effect

REDACTED VERSION OF DOCUMENT SOUGHT TO BE SEALED

1   on the tied market for in-app payment processing, as well as on the tying market for distribution

2   services, is substantial. Accordingly, Google's tying conduct is *per se* unlawful. And alternatively, it

3   is unlawful under a rule of reason analysis given the facts and circumstances described herein.

4   251.261.   Given this tie, Google's immense market power in the tying market for

5   distribution services, and the substantial effect on commerce in the tied market for Android in-app

6   payment processing, is *per se* unlawful.

7   252.262.   Google's conduct as described herein, including its unlawful practices in

8   restraint of trade, is exclusionary vis-à-vis its rivals in the U.S. market for Android OS app distribution.

9   253.263.   Google has behaved as alleged herein to achieve, maintain, and grow its

10 monopoly in the U.S. market for Android OS app distribution, with the effect being that competition

11 is foreclosed and that developer choice is gravely diminished. So is innovation. Additionally, Google

12 has abused its market power by imposing supracompetitive 30% (or 15%) developer service fees[147]

13 and minimum price fixing. Further, Google's actions have depressed output as alleged herein.

14 254.264.   There is no valid business necessity or pro-competitive justification for

15 Google's conduct. Instead, Google's actions are designed to destroy competition as alleged herein.

16 255.265.   Plaintiffs and the class have been injured, and will continue to be injured, in

17 their businesses and property as a result of Google's conduct, including by way of overpaying for

18 distribution services.

19 256.266.   Finally, developers, including the Plaintiffs, are inclined to sell Android OS

20 applications, in-app purchases, and subscriptions via Google Play, or apps purchased therein, in the

21 future, in part because of their investment in their development for the Android OS ecosystem, which

22 is incompatible with Apple's iOS ecosystem. Plaintiffs and the class are entitled to an injunction to

23 prevent Google from persisting in its unlawful behavior to their detriment, including the harm that its

24 behavior is causing to their businesses.

25

26

27   [147] Or, alternatively, a still supracompetitive 15% commission on certain subscriptions, for what

28   amounts to payment processing services that could be purchased much cheaper from other providers
     if Google permitted developers to use them.

FIRSTSECOND AMENDED CONSOLIDATED   - 86 -
CLASS ACTION COMPLAINT   Case No.: 3:20-cv-05792-JD
010803-11/1577289 V1010803-11/1709085 V1

SECOND CAUSE OF ACTION:
VIOLATION OF THE SHERMAN ACT – ATTEMPTED MONOPOLIZATION
OF U.S. ANDROID APP DISTRIBUTION MARKET
(15 U.S.C. § 2)

257.267.   Plaintiffs repeat and re-allege every allegation above as if set forth herein in full.

258.268.   Plaintiffs bring this claim on their own behalf and on behalf of each member of the proposed nationwide class described above.

259.269.   Google has attempted to monopolize the U.S. market for distribution of Android OS apps, i.e., for distribution services provided to U.S. Android app developers. Alternatively, Google has attempted to monopolize the U.S. market for Android OS app distribution.

260.270.   Google's anticompetitive conduct has created a dangerous probability that it will achieve monopoly power in the U.S. market for Android OS app distribution.

261.271.   Google has a specific intent to achieve monopoly power in the U.S. market for Android OS app distribution.

262.272.   Google has the power to exclude competition in the U.S. market for Android OS app distribution, and it has used that power, including by way of its unlawful practices in restraint of trade as described herein, in an attempt to monopolize that relevant market.

263.273.   Google's conduct as described herein, including its unlawful practices in restraint of trade, is exclusionary vis-à-vis its rivals in the U.S. market for Android OS app distribution.

264.274.   Google has behaved as alleged herein in a willful attempt to obtain a monopoly in the U.S. market for Android OS app distribution, with the effect being that competition is foreclosed and that consumer choice is gravely diminished. So is innovation. Additionally, Google has abused its market power by insisting on up to 30% service fees[148] and minimum price fixing. Further, Google's actions have depressed output as alleged herein.

265.275.   There is no valid business necessity or pro-competitive justification for Google's conduct.

[148] Or, alternatively, a still supracompetitive 15% commission on certain subscriptions, for what amounts to payment processing services that could be purchased much cheaper from other providers if Google permitted developers to use them.

266.276.   Plaintiffs and the class have been injured, and will continue to be injured, in their businesses and property as a result of Google's conduct, including by way of overpaying for distribution services.

267.277.   Finally, developers, including Plaintiffs, are inclined to sell Android OS applications, in-app purchases, and subscriptions via Google Play, or apps purchased therein, in the future, in part because of their investment in their development for the Android OS ecosystem, which is incompatible with Apple's iOS ecosystem. Plaintiffs and the class are entitled to an injunction to prevent Google from persisting in its unlawful behavior to their detriment, including the harm that its behavior is causing to their businesses.

THIRD CAUSE OF ACTION:
VIOLATION OF THE SHERMAN ACT - MONOPOLIZATION OF U.S. MARKET FOR ANDROID IN-APP PAYMENT PROCESSING
(15 U.S.C. § 2)

268.278.   Plaintiffs repeat and re-allege every allegation above as if set forth herein in full.

269.279.   Plaintiffs bring this federal law claim on their own behalf and on behalf of each member of the proposed nationwide class described above.

270.280.   For this count, the relevant market is the U.S. market for Android in-app payment processing, i.e., for payment processing provided to U.S. Android app developers.

271.281.   Google possesses monopoly power in the relevant market.

272.282.   For the reasons stated herein, substantial barriers to entry and expansion exist in the relevant markets.

273.283.   Google has the power to exclude competition in the relevant market, and it has willfully used that power, including by way of its unlawful practices in restraint of trade as described herein, in order to achieve, maintain, and expand its monopoly power in that market.

274.284.   Google's conduct as described herein, including its unlawful practices in restraint of trade, is exclusionary vis-à-vis its rivals in the relevant market is the U.S. market for Android in-app payment processing, i.e., for payment processing provided to U.S. Android app developers.

275.285.   Google has behaved as alleged herein to achieve, maintain, and grow its monopoly in the U.S. market for Android in-app payment processing, i.e., for payment processing provided to U.S. Android app developers, with the effect being that competition is foreclosed and that developer choice is gravely diminished. So is innovation. Additionally, Google has abused its market power by imposing supracompetitive 30% (or 15%) developer service fees[149] and minimum price fixing. Further, Google's actions have depressed output as alleged herein.

276.286.   There is no valid business necessity or pro-competitive justification for Google's conduct. Instead, Google's actions are designed to destroy competition as alleged herein.

277.287.   Plaintiffs and the class have been injured, and will continue to be injured, in their businesses and property as a result of Google's conduct, including by way of overpaying for payment processing.

278.288.   Finally, developers, including Plaintiffs, are inclined to sell Android OS applications, in-app purchases, and subscriptions via Google Play, or apps purchased therein, in the future, in part because of their investment in their development for the Android OS ecosystem, which is incompatible with Apple's iOS ecosystem. Plaintiffs and the class are entitled to an injunction to prevent Google from persisting in its unlawful behavior to their detriment, including the harm that its behavior is causing to their businesses.

FOURTH CAUSE OF ACTION:
VIOLATION OF THE SHERMAN ACT – ATTEMPTED MONOPOLIZATION OF U.S.
MARKET FOR ANDROID IN-APP PAYMENT PROCESSING
(15 U.S.C. § 2)

279.289.   Plaintiffs repeat and re-allege every allegation above as if set forth herein in full.

280.290.   Plaintiffs bring this claim on their own behalf and on behalf of each member of the proposed nationwide class described above.

281.291.   Google has attempted to monopolize the U.S. market for Android in-app payment processing, i.e., for payment processing provided to U.S. Android app developers.

---

[149] Or, alternatively, a still supracompetitive 15% commission on certain subscriptions, for what amounts to payment processing services that could be purchased much cheaper from other providers if Google permitted developers to use them.

282.292.   Google's anticompetitive conduct has created a dangerous probability that it will achieve monopoly power in the U.S. market for Android in-app payment processing, i.e., for payment processing provided to U.S. Android app developers.

283.293.   Google has a specific intent to achieve monopoly power in the U.S. market for Android in-app payment processing, i.e., for payment processing provided to U.S. Android app developers.

284.294.   Google has the power to exclude competition in the U.S. market for Android in-app payment processing, i.e., for payment processing provided to U.S. Android app developers, and it has used that power, including by way of its unlawful practices in restraint of trade as described herein, in an attempt to monopolize that relevant market.

285.295.   Google's conduct as described herein, including its unlawful practices in restraint of trade, is exclusionary vis-à-vis its rivals in the U.S. market for Android in-app payment processing, i.e., for payment processing provided to U.S. Android app developers.

286.296.   Google has behaved as alleged herein in a willful attempt to obtain a monopoly in the U.S. market for Android in-app payment processing, i.e., for payment processing provided to U.S. Android app developers, with the effect being that competition is foreclosed and that consumer choice is gravely diminished. So is innovation. Additionally, Google has abused its market power by insisting on up to 30% service fees[150] and minimum price fixing. Further, Google's actions have depressed output as alleged herein.

287.297.   There is no valid business necessity or pro-competitive justification for Google's conduct.

288.298.   Plaintiffs and the class have been injured, and will continue to be injured, in their businesses and property as a result of Google's conduct, including by way of overpaying for payment processing.

---

[150] Or, alternatively, a still supracompetitive 15% commission on certain subscriptions, for what amounts to payment processing that could be purchased much cheaper from other providers if Google permitted developers to use them.

289.299.   Finally, developers, including Plaintiffs, are inclined to sell Android OS applications, in-app purchases, and subscriptions via Google Play, or apps purchased therein, in the future, in part because of their investment in their development for the Android OS ecosystem, which is incompatible with Apple's iOS ecosystem. Plaintiffs and the class are entitled to an injunction to prevent Google from persisting in its unlawful behavior to their detriment, including the harm that its behavior is causing to their businesses.

FIFTH CAUSE OF ACTION:
VIOLATION OF THE SHERMAN ACT – RESTRAINT OF TRADE RE:
IN-APP PAYMENT PROCESSING
(15 U.S.C. §§ 1, 3)

290.300.   Plaintiffs repeat and re-allege every allegation above as if set forth herein in full.

291.301.   Google's conduct violates Sections 1 and 3 of the Sherman Act, which prohibit "[e]very contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce. . . ." 15 U.S.C. §§ 1, 3.

292.302.   Google requires app developers to enter its standardized DDA, including Developer Program Policies integrated into that Agreement, as a condition of having their apps distributed through Google's monopolized app store, Google Play. The relevant provisions of these agreements unreasonably restrain competition in the U.S. market for Android in-app payment processing, i.e., for payment processing provided to U.S. Android app developers.

293.303.   Section 3.2 of the DDA requires that Android app developers enter into a separate agreement with Google's payment processor, Defendant Google Payment, in order to receive payment for apps and content distributed through Google Play. This includes payments related to in-app purchases of digital content. Further, Google's Developer Program Policies, compliance with which Section 4.1 of the DDA makes obligatory, require that apps distributed through Google Play "must use Google Play In-app Billing [offered by Google Payment] as the method of payment" for such in-app purchases. While Google's Policies exclude certain types of transactions from this requirement, such as the purchase of "solely physical products" or of "digital content that may be consumed outside of the app itself," Google expressly applies its anticompetitive mandate to every "game downloaded on Google Play" and to all purchased "game content."

294.304.   The challenged provisions serve no sufficient legitimate or pro-competitive purpose and unreasonably restrain competition in the U.S. market for Android app distribution and Android in-app payment processing, i.e., for payment processing provided to U.S. Android app developers.

295.305.   Google's conduct affects a substantial volume of interstate commerce.

296.306.   Google's conduct has substantial anticompetitive effects, including increased prices and costs, reduced innovation and quality of service, and lowered output

297.307.   Plaintiffs and putative class members have been harmed by Google's anticompetitive conduct in a manner that the antitrust laws were intended to prevent. They have suffered and continue to suffer damages and irreparable injury, including harm to their businesses, and such damages and injury will not abate unless an injunction issues that will stop Google's anticompetitive conduct.

298.308.   Developers, including the Plaintiffs, are inclined to sell Android OS applications, in-app purchases, and subscriptions via Google Play, or apps purchased therein, in the future, in part because of their investment in their development for the Android OS ecosystem, which is incompatible with Apple's iOS ecosystem. Plaintiffs and the class are entitled to an injunction to prevent Google from persisting in its unlawful behavior to their detriment.

SIXTH CAUSE OF ACTION:
VIOLATION OF THE SHERMAN ACT – TYING AS ALTERNATIVE BASIS FOR
RESTRAINT OF TRADE RE: IN-APP PAYMENT-PROCESSING
(15 U.S.C. §§ 1, 3)

299.309.   Plaintiffs repeat and re-allege every allegation above as if set forth herein in full.

300.310.   Google's conduct violates Sections 1 and 3 of the Sherman Act, which prohibit "[e]very contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce. . . ." 15 U.S.C. §§ 1, 3.

301.311.   Google has unlawfully tied distribution services for Google Play to its in-app payment processor, Google Play Billing, through its DDAs with app developers and its Developer Program Policies.

302.312.   As demonstrated herein, Google has immense, monopoly power in the tying market—the U.S. market for Android OS app distribution. Put another way, with Google Play installed on nearly all Android OS devices and over 90% of downloads on Android OS devices being performed via Google Play, Google has overwhelming market power. Google's market power is further evidenced by its ability to extract supracompetitive taxes on the sale of apps via Google Play.

303.313.   The availability of Google Play for app distribution is conditioned on the app developer accepting a second product, Google's in-app payment processing. Google's substantial foreclosure of alternative app distribution channels thus forces developers, including the Plaintiffs and putative class members, to use Google's in-app payment processing.

304.314.   The tying product, Android app distribution, is distinct from the tied product, Android in-app payment processing, because app developers have alternative in-app payment processing options and would prefer to choose among them independently of how an Android app is distributed. Google's unlawful tying arrangement thus ties two separate products that are in separate markets. Google's contract and written policies underscore their separate nature.[151][145]

305.315.   Google's conduct forecloses competition in the U.S. market for Android in-app payment processing, i.e., for payment processing provided to U.S. Android app developers. Given the volume of transactions and the money at issue, Google's conduct thus affects a substantial volume of commerce in that market.

306.316.   Google has thus engaged in a *per se* illegal tying arrangement. *See* ¶¶ 190-195, *supra*.

307.317.   In the alternative only, even if Google's tying conduct does not constitute a *per se* violation of the law, a rule-of-reason analysis of Google's tying arrangement also would demonstrate that it violates the law.

308.318.   As app developers that consume in-app payment processing for in-app subscription products, Plaintiffs have been harmed by Google's anticompetitive conduct. Plaintiffs and members of the putative class have suffered and continue to suffer damages and irreparable injury,

---

[151][145] *See* supra ¶¶ 190-195 200-223.

1 including ongoing harm to their businesses, and such damages and injury will not abate until the Court

2 issues an injunction ending Google's anticompetitive conduct issues.

3 ~~309.~~319.   Developers, including the Plaintiffs, are inclined to sell Android OS

4 applications, in-app purchases, and subscriptions via Google Play, or apps purchased therein, in the

5 future, in part because of their investment in their development for the Android OS ecosystem, which

6 is incompatible with Apple's iOS ecosystem. Plaintiffs and the class are entitled to an injunction to

7 prevent Google from persisting in its unlawful behavior to their detriment.

8 **SEVENTH CAUSE OF ACTION:**
VIOLATION OF THE UNFAIR COMPETITION ACT
9 **(CAL. BUS. & PROF. CODE §§ 17200 *ET SEQ.*)**

10 ~~310.~~320.   Plaintiffs repeat and re-allege every allegation above as if set forth herein in full.

11 ~~311.~~321.   Plaintiffs bring this claim on their own behalf and on behalf of each member of

12 the proposed nationwide class described above.

13 ~~312.~~322.   California's Unfair Competition Law (UCL) defines "unfair competition" to

14 include any "unlawful, unfair, or fraudulent" business act or practice. CAL. BUS. & PROF. CODE §§

15 17200 *et seq.* As these are stated in the disjunctive, the UCL sets up three prongs—the unlawful, unfair,

16 and fraudulent prongs—the violation of any of which constitutes a violation of the UCL.

17 ~~313.~~323.   Google has engaged in, and continues to engage in, acts of unfair competition

18 as defined in California's UCL. More specifically, Google, based upon the conduct alleged herein, has

19 violated the unlawful, unfair, and fraudulent prongs of the UCL.

20 **A.   Google's Conduct is Unlawful**

21 ~~314.~~324.   Google's acts of unfair competition include its violations of the Sherman and

22 Cartwright Acts as alleged herein. Therefore, Google has violated the unlawful prong of the UCL.

23 ~~315.~~325.   Google's unlawful conduct has caused Plaintiffs and Class members to suffer

24 injury in fact. Because developers have overpaid for distribution and in-app payment processing fees,

25 they have lost money or property as a result of Google's unlawful behavior.

26 ~~316.~~326.   Finally, developers, including the Plaintiffs, are inclined to sell Android OS

27 applications, in-app purchases, and subscriptions via Google Play, or apps purchased therein, in the

28

future, in part because of their investment in their development for the Android OS ecosystem, which is incompatible with Apple's iOS ecosystem. Plaintiffs and the class are entitled to an injunction to prevent Google from persisting in its unlawful behavior to their detriment.

B.   Google Has Behaved Unfairly

317.327.   Google's acts of unfair competition include its violations of the Sherman Act and Cartwright Acts and the policies underlying those statutes, as alleged herein. Additionally, Google has behaved unfairly and in violation of public policy as alleged herein. Among other unfair conduct, Google has stifled price competition by prohibiting Plaintiffs and class members from communicating with their customers about alternative, lower-priced payment options, causing harm to Plaintiffs and class members and to competition. These anti-steering restraints, at a minimum, threaten an incipient violation of antitrust law by preventing informed choice among Google Play users, and violate the policy and spirit of the antitrust laws. Therefore, Google has violated the unfair prong of the UCL.

318.328.   Google's unfair conduct has caused Plaintiffs and class members to suffer injury in fact. Because developers have overpaid for distribution and in-app payment processing fees, they have lost money or property as a result of Google's unfair behavior.

319.329.   Finally, developers, including the Plaintiffs, are inclined to sell Android OS applications, in-app purchases, and subscriptions via Google Play, or apps purchased therein, in the future, in part because of their investment in their development for the Android OS ecosystem, which is incompatible with Apple's iOS ecosystem. Plaintiffs and the class are entitled to an injunction to prevent Google from persisting in its unlawful behavior to their detriment.

C.   Google Has Behaved Fraudulently

320.330.   Google's acts of unfair competition include its fraudulent business acts and practices. Among other fraudulent acts and practices, Google has made misleading statements and pretextual claims intended to deter users from directly downloading apps or app stores from any source other than Google, and has misled users, Developers, OEMs and carriers with false statements that Android was and continues to be an "open system". Therefore, Google has violated the fraudulent prong of the UCL.

321.331.   Google's fraudulent conduct has caused Plaintiffs and class members to suffer injury in fact. Because developers have overpaid for distribution and in-app payment processing fees, they have lost money or property as a result of Google's fraudulent business acts and practices.

322.332.   Finally, developers, including the Plaintiffs, are inclined to sell Android OS applications, in-app purchases, and subscriptions via Google Play, or apps purchased therein, in the future, in part because of their investment in their development for the Android OS ecosystem, which is incompatible with Apple's iOS ecosystem. Plaintiffs and the class are entitled to an injunction to prevent Google from persisting in its fraudulent behavior to their detriment.

EIGHTH CAUSE OF ACTION:
VIOLATION OF THE CARTWRIGHT ACT
(CA. BUS & PROF. CODE §§ 16700 *ET SEQ.*)

323.333.   Plaintiffs repeat and re-allege every allegation above as set forth herein in full.

324.334.   Google's acts and practices detailed above violate the Cartwright Act, Cal. Bus. & Prof. Code § 16700 *et seq.*, which prohibits, *inter alia*, the combination of resources by two or more persons to restrain trade or commerce or to prevent market competition. *See* §§ 16720, 16726.

325.335.   Under the Cartwright Act, a "combination" is formed when the anti-competitive conduct of a single firm coerces other market participants to involuntarily adhere to the anti-competitive scheme.

326.336.   The U.S. market for distribution of Android OS apps, i.e., for distribution services provided to U.S. Android app developers, is a valid antitrust market. Alternatively, the Android app distribution market is a valid antitrust market.

327.337.   Google has executed agreements with OEMs that unreasonably restrict competition in the U.S. market for distribution of Android OS apps. Namely, Google has entered into MADAs with OEMs that require OEMs to offer the Google Play Store as the primary—and practically the only—app store on Android mobile devices. These agreements further prevent OEMs from offering alternative app stores on Android mobile devices in any prominent visual positioning.

328.338.   Google requires app developers to enter its standardized DDA, including Developer Program Policies integrated into that Agreement, as a condition of having their apps

distributed through Google's monopolized app store, Google Play. The relevant provisions of these agreements unreasonably restrain competition in the U.S. market for Android in-app payment processing, i.e., for payment processing provided to U.S. Android app developers.

329.339.   Section 3.2 of the DDA requires that Android app developers enter into a separate agreement with Google's payment processor, Defendant Google Payment, in order to receive payment for apps and content distributed through Google Play. This includes payments related to in-app purchases of digital content. Further, Google's Developer Program Policies, compliance with which Section 4.1 of the DDA makes obligatory, require that apps distributed through Google Play "must use Google Play In-app Billing [offered by Google Payment] as the method of payment" for such in-app purchases. While Google's Policies exclude certain types of transactions from this requirement, such as the purchase of "primarily physical" goods and services or of "digital content that may be consumed outside of the app itself," Google expressly applies its anticompetitive mandate to all "Play-distributed apps . . . if they require or accept payment for access to features or services, including any app functionality, digital content or goods".

330.340.   The challenged provisions serve no sufficient legitimate or pro-competitive purpose and unreasonably restrain competition in the U.S. market for Android app distribution and Android in-app payment processing, i.e., for payment processing provided to U.S. Android app developers.

331.341.   Google's conduct has substantial anticompetitive effects, including increased prices and costs, reduced innovation and quality of service, and lowered output.

332.342.   Plaintiffs and putative class members have been harmed by Google's anticompetitive conduct in a manner that the Cartwright Act was intended to prevent. They have suffered and continue to suffer damages and irreparable injury, including harm to their businesses, and such damages and injury will not abate unless an injunction issues that will stop Google's anticompetitive conduct.

333.343.   Developers, including the Plaintiffs, are inclined to sell Android OS applications, in-app purchases, and subscriptions via Google Play, or apps purchased therein, in the

1 future, in part because of their investment in their development for the Android OS ecosystem, which

2 is incompatible with Apple's iOS ecosystem. Plaintiffs and the class are entitled to an injunction to

3 prevent Google from persisting in its unlawful behavior to their detriment.

4 **NINTH CAUSE OF ACTION:**
VIOLATION OF THE CARTWRIGHT ACT;
5 **TYING AS ALTERNATIVE BASIS FOR RESTRAINT OF TRADE REGARDING IN-APP**
PAYMENT PROCESSING
6 **(CA. BUS & PROF. CODE §§ 16700 ET SEQ.)**

7 334.344.   Plaintiffs repeat and re-allege every allegation above as if set forth herein in

8 full.

9 335.345.   Google's acts and practices detailed above violate the Cartwright Act, Cal.

10 Bus. & Prof. Code § 16700 *et seq.*, which prohibits, *inter alia*, the combination of resources by two

11 or more persons to restrain trade or commerce or to prevent market competition. *See* §§ 16720,

12 16726.

13 336.346.   Under the Cartwright Act, a "combination" is formed when the anti-

14 competitive conduct of a single firm coerces other market participants to involuntarily adhere to the

15 anti-competitive scheme.

16 337.347.   Google has unlawfully tied distribution services for Google Play to its in-app

17 payment processor, Google Play Billing, through its DDAs with app developers and its Developer

18 Program Policies.

19 338.348.   As demonstrated herein, Google has immense, monopoly power in the tying

20 market—the U.S. market for Android OS app distribution. Put another way, with Google Play

21 installed on nearly all Android OS devices and over 90% of downloads on Android OS devices being

22 performed via Google Play, Google has overwhelming market power. Google's market power is

23 further evidenced by its ability to extract supracompetitive taxes on the sale of apps via Google Play.

24 339.349.   The availability of Google Play for app distribution is conditioned on the app

25 developer accepting a second product, Google's in-app payment processing. Google's substantial

26 foreclosure of alternative app distribution channels thus forces developers, including the Plaintiffs

27 and putative class members, to use Google's in-app payment processing.

28

340.350.   The tying product, Android app distribution, is distinct from the tied product, Android in-app payment processing, because app developers have alternative in-app payment processing options and would prefer to choose among them independently of how an Android app is distributed. Google's unlawful tying arrangement thus ties two separate products that are in separate markets. Google's contract and written policies underscore their separate nature.[152146]

341.351.   Google's conduct forecloses competition in the U.S. market for Android in-app payment processing, i.e., for payment processing provided to U.S. Android app developers. Given the volume of transactions and the money at issue, Google's conduct thus affects a substantial volume of commerce in that market.

342.352.   Google has thus engaged in a *per se* illegal tying arrangement. *See* ¶¶ 190-195, *supra*.

343.353.   In the alternative only, even if Google's tying conduct does not constitute a *per se* violation of the law, a rule-of-reason analysis of Google's tying arrangement also would demonstrate that it violates the law.

344.354.   As app developers that consume in-app payment processing for in-app subscription products, Plaintiffs have been harmed by Google's anticompetitive conduct. Plaintiffs and members of the putative class have suffered and continue to suffer damages and irreparable injury, including ongoing harm to their businesses, and such damages and injury will not abate until the Court issues an injunction ending Google's anticompetitive conduct issues.

345.355.   Developers, including the Plaintiffs, are inclined to sell Android OS applications, in-app purchases, and subscriptions via Google Play, or apps purchased therein, in the future, in part because of their investment in their development for the Android OS ecosystem, which is incompatible with Apple's iOS ecosystem. Plaintiffs and the class are entitled to an injunction to prevent Google from persisting in its unlawful behavior to their detriment.

PRAYER FOR RELIEF

WHEREFORE, Plaintiffs respectfully request the following relief:

[152146] *See* supra ¶¶ 155-57200-204.

A.   That the Court certify this case as a class action and that it appoint Plaintiffs as class representatives and their counsel as class counsel;

B.   That the Court award them and the proposed class all appropriate relief, to include, but not be limited to, injunctive relief requiring that Google cease the abusive, unlawful, and anticompetitive practices described herein (including pursuant to federal antitrust law, *see, e.g.*, 15 U.S.C. § 26, and state law, *see, e.g.*, Cal. Bus. & Prof. Code §§ 16750 and 17203, as requested herein); declaratory relief, adjudging such practices unlawful; as well as monetary relief, whether by way of restitution (*see, e.g.*, Cal. Bus. & Prof. Code § 17203) or damages, including treble damages (*see, e.g.*, 15 U.S.C. § 15(a), and Cal. Bus. & Prof. Code § 16750), or other multiple or punitive damages, or restitution, where mandated by law (including federal antitrust law, *see, e.g.*, 15 U.S.C. § 15(a)) or equity or as otherwise available; together with recovery of their costs of suit, to include their reasonable attorneys' fees, costs, and expenses (including pursuant to federal and state antitrust law, *see, e.g.*, 15 U.S.C. § 15(a) and/or 15 U.S.C. § 26 and Cal. Bus. & Prof. Code § 16750; *see also* Cal. Code Civ. Pro. § 1021.5)), together with pre- and post-judgment interest to the maximum levels permitted by law or equity.

C.   That the Court grant such additional orders or judgments as may be necessary to prevent the unlawful practices complained of herein; and

D.   That the Court award Plaintiffs and the proposed class such other, favorable relief as may be available and appropriate under federal or state law, or at equity.

JURY TRIAL DEMANDED

Plaintiffs demand a trial by jury on all issues so triable.

DATED: ~~July 21~~December 3, 2021   Respectfully submitted,

HAGENS BERMAN SOBOL SHAPIRO LLP

REDACTED VERSION OF DOCUMENT SOUGHT TO BE SEALED

By   /s/ Steve W. Berman
    Steve W. Berman (*pro hac vice*)
Robert F. Lopez (*pro hac vice*)
HAGENS BERMAN SOBOL SHAPIRO LLP
1301 Second Avenue, Suite 2000
Seattle, WA 98101
Telephone: (206) 623-7292
Facsimile: (206) 623-0594
steve@hbsslaw.com
robl@hbsslaw.com
Benjamin J. Siegel (SBN 256260)
HAGENS BERMAN SOBOL SHAPIRO LLP
715 Hearst Avenue, Suite 202
Berkeley, CA 94710
Telephone: (510) 725-3000
Facsimile: (510) 725-3001
bens@hbsslaw.com
By   /s/ Eamon P. Kelly
    Eamon P. Kelly (*pro hac vice*)
Joseph M. Vanek (*pro hac vice*)
Alberto Rodriguez (*pro hac vice*)
SPERLING & SLATER, P.C.
55 W. Monroe Street, 32nd Floor
Chicago, IL 60603
Telephone: (312) 676-5845
Facsimile: (312) 641-6492
jvanek@sperling-law.com
ekelly@sperling-law.com
arodriguez@sperling-law.com

By *s/ Bonny E. Sweeney*
    Bonny E. Sweeney (SBN 176174)
Kyle Geoffrey Bates (SBN 299114)
HAUSFELD LLP
600 Montgomery Street, Suite 3200
San Francisco, CA 94111
Telephone.: (415) 633-1908 (main)
Telephone: (415) 633-1953 (direct)
Facsimile: (415) 358-4980
bsweeney@hausfeld.com
kbates@hausfeld.com

Melinda R. Coolidge (*pro hac vice*)
HAUSFELD LLP
1700 K Street, NW, Suite 650
Washington, DC 20006
Telephone: (202) 540-7200 (main)
Telephone: (202) 540-7144 (direct)

FIRSTSECOND AMENDED CONSOLIDATED CLASS ACTION COMPLAINT   - 101 -   010803-11/1577289 V1010803-11/1709085 V1   Case No.: 3:20-cv-05792-JD

Facsimile: (202) 540-7201
mcoolidge@hausfeld.com

Katie R. Beran (*pro hac vice*)
Yelena W. Dewald (*pro hac vice*)
Daniel Kees (*pro hac vice*)
HAUSFELD LLP
325 Chestnut Street, Suite 900
Philadelphia, PA 19106
Telephone: (215) 985-3270 (main)
Telephone: (267) 702-3215 (direct)
Facsimile: (215) 985-3271
kberan@hausfeld.com
ydewald@hausfeld.com
dkees@hausfeld.com

Scott A. Martin (*pro hac vice*)
Irving Scher (*pro hac vice*)
HAUSFELD LLP
33 Whitehall Street, 14th Floor
New York, NY 10004
Telephone: (646) 357-1100 (main)
Telephone: (646) 357-1195 (direct)
Facsimile: (212) 202-4322
smartin@hausfeld.com
ischer@hausfeld.com

HAGENS BERMAN SOBOL SHAPIRO LLP

By   */s/ Steve W. Berman*
       Steve W. Berman (*pro hac vice*)
Robert F. Lopez (*pro hac vice*)
HAGENS BERMAN SOBOL SHAPIRO LLP
1301 Second Avenue, Suite 2000
Seattle, WA 98101
Telephone: (206) 623-7292
Facsimile: (206) 623-0594
steve@hbsslaw.com
robl@hbsslaw.com

Ben M. Harrington (SBN 313877)

Benjamin J. Siegel (SBN 256260)
HAGENS BERMAN SOBOL SHAPIRO LLP
715 Hearst Avenue, Suite 202
Berkeley, CA 94710
Telephone: (510) 725-3000
Facsimile: (510) 725-3001
bens@hbsslaw.com
benh@hbsslaw.com

By   /s/ Eamon P. Kelly
     Eamon P. Kelly (*pro hac vice*)
Joseph M. Vanek (*pro hac vice*)
Alberto Rodriguez (*pro hac vice*)
SPERLING & SLATER, P.C.
55 W. Monroe Street, 32nd Floor
Chicago, IL 60603
Telephone: (312) 676-5845
Facsimile: (312) 641-6492
jvanek@sperling-law.com
ekelly@sperling-law.com
arodriguez@sperling-law.com

Raymond Witt (*pro hac vice*)
THE LEWIS FIRM PLLC
1300 I Street NW, Suite 400E
Washington, DC 20005
Tel.: (202) 355-8895
Fax: (888) 430-6695
rwitt@lewis-firm.com

Interim Co-Lead Class Counsel

Summary report: Litera Compare for Word 11.0.0.45 Document comparison done on 12/6/2021 4:23:59 PM	
Style name: Default Style	
Intelligent Table Comparison: Active	
Original filename: original.docx	
Modified filename: revised.docx	
Changes:	
Add	817
Delete	876
Move From	0
Move To	0
Table Insert	0
Table Delete	0
Table moves to	0
Table moves from	0
Embedded Graphics (Visio, ChemDraw, Images etc.)	0
Embedded Excel	0
Format changes	0
Total Changes:	1693